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ABSTRACT

This paper describes summative evaluation of the Quest project conducted at four case-study schools. The schools were selected for their high involvement in Quest, varied interpretations and uses of the project, and diverse locations and demographic constitutions. Data collection included participant observation, individual and semistructured group interviews, pre- and post-test score analysis on the "School Professional Staff as Learning Community" survey test, Reflective Assessment questionnaires for school staff, and state-mandated student achievement test scores. Results varied unevenly across the study sites. For example, one well-funded school serving mostly middle-class students showed little improvement in student achievement and professional learning community, whereas two schools serving less advantaged students improved dramatically in professional development with ambiguous outcomes in student performance. Interviewees, however, consistently described their participation in Quest as personally and professionally meaningful. Findings revealed tensions between the schools' needs for flexibility in implementing reforms and external demands for standardized achievement scores. Another tension involved the relatively more evident influence of the Quest project at the individual level versus a more ambiguous influence at the level of school district or state department of education. The appendix includes a Quest brochure and a framework for continuous improvement. (Contains 52 references and 7 tables.) (RT)

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Four Eyes on the Prize:
Case Studies of Four Schools of Continuous Improvement

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This paper describes summative evaluation of the Quest project at AEL, Inc. Quest is a network of schools committed to continuous improvement based upon principles of collaboration, inquiry, and action research. AEL, Inc., is a nonprofit corporation that works with educators in ongoing research and development efforts to improve education and educational opportunity. AEL serves as the Regional Educational Laboratory for the states of Kentucky, Tennessee, Virginia, and West Virginia.

INTRODUCTION

This paper describes summative evaluation of the Quest project at AEL, Inc. Case studies were conducted to provide in-depth information about the effectiveness of the project in four diverse schools, chosen for investigation for their disparate locations, demographics, articulations of goals and school improvement efforts. The following sections describe the four case study sites, the research foundation of the Quest project, and project activities.

Case Study Schools

Bending Knee Elementary, West Virginia

Bending Knee Elementary[1] is located in a small town in a rural southwestern coal-mining West Virginia county. The county struggles with poverty and unemployment, with 32.8% of the population in 1993 living below the federal poverty line and an unemployment rate in 1996 of 12.4% (U.S. Bureau of the Census, 1999).

The school serves approximately 220 students in grades pre-K-6, and average class size is about 16.1. Five classrooms in the school contain split grades. Staff include the principal, 15 teachers (including one speech therapist, two special education teachers, and one Title I teacher), five service personnel, and three cooks. The staff is experienced: All have taught for more than six years and nearly half for more than 15 years. Sixty-two percent of certified staff hold a master's degree with 30 or more hours of additional graduate credit.

Most of the Bending Knee staff have worked for their entire professional lives at this school. Because of the community's small size, many staff are related. For example, two pairs of sisters and one husband and wife are on the faculty. Others are cousins or good friends. Only two staff live outside the attendance area; they drive about an hour from a city in an adjoining county (Sattes, forthcoming).

One hundred percent of the student population is White, and about 70% qualify for free or reduced-price lunches. Twenty percent qualify for special education services. The attendance rate during the 1997-98 school year was 94%.

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[1]All school and personal names used in this report are pseudonyms in order to protect the anonymity and confidentiality of participants.

Bending Knee has instituted a number of reforms, including the provision of a Family Center, staffed by a part-time parent coordinator, in which parents, other relatives, and community volunteers are welcomed. During the 1997-98 school year, 98% of parents had attended at least one meeting in the building. And during the 1998-99 year, Bending Knee clocked more than 12,000 volunteer hours (Sattes, forthcoming). The school also began a "telephone tree," through which every parent received a monthly call from other parents to share upcoming school activities and to solicit comments and feedback about the school.

The school works with other community agencies and has partnerships with a local lumber company, a health association, and the town's community outreach organization. One particularly successful partnership has been with a nonprofit organization in the community funded by a large foundation. With assistance from the organization, the principal has written several grants that have been funded to allow the school to offer such programs as the following:

- a half-day preschool program for four-year-olds;
- the MicroSociety program, staffed by a part-time parent and requiring many extras in the way of supplies, materials, and equipment; and
- an after-school tutoring program serving 70 children and staffed by volunteer parents and high school students (Sattes, forthcoming).

In cooperation with two other county schools, Bending Knee received notice in February 1999 of the award of a 21st Century Community Learning Center grant—$326,000 per year for three years to provide after-school and summer programs. The schools offer both an academic track—including basic reading and math, hands-on science, and creative writing—as well as a track of courses in recreation and arts to include such programs as traditional sports (basketball, baseball, and football), karate, gymnastics, piano, and arts and crafts.

Bowman Elementary, Tennessee

Bowman Elementary is a K-5 public school located in the downtown of a mid-size Tennessee city. The school serves its immediate neighborhood and an extended area of approximately 5 miles away. Bowman has an enrollment of about 530 students, 73% of whom are African American and 27% White. Sixty-three percent of the students qualify for free or reduced lunch, and the school participates in a schoolwide Title I program. There are four classrooms serving each grade; class size is approximately 20 in grades K-2 and 24 in grades 3-5. Two 25-station computer labs provide each class with 30 minutes of instruction daily. The faculty includes 24 classroom teachers; three special education teachers; two computer lab managers; one coordinator of technology, and parent and other volunteers; a full-time librarian; a guidance counselor; and a physical education teacher. Art, music, and foreign language classes are taught by area specialists, and inclusion services are provided by certified staff and support personnel.

The school has several initiatives in place. One program provides an additional 15 minutes of instruction in math daily, and a collaborative arrangement between Bowman and the local high

school allows high school student interns in child care to assist in kindergarten and first grade classrooms. An extended day program offers support to students who may need additional help with their studies, and a community outreach program provides Bowman students community service experiences. Finally, the Accelerated Reader program, an effort to encourage reading, has been put in place by Bowman's central office administration.

Tinder Elementary, Kentucky

Tinder Elementary is located in a suburban neighborhood of a mid-size Kentucky city. The school building opened in the fall of 1990 and currently serves approximately 700 students in grades kindergarten through sixth. Located on a 30-acre campus, the school includes 15 acres with walking trails, fitness stations, a playground, wild flower gardens, and a show garden of iris maintained by local iris gardeners.

Eighty-six percent of the student population at Tinder is White, 7% African American, 4% of Asian descent, and 2% Latino. The school does not qualify for Title I funds; 16.2% of the students qualify for free or reduced price lunches.

The school is served by 54 staff, 43 of whom are certified. A principal, assistant principal, 41 teachers, and 11 other instructional staff comprise this group. Classroom pupil-teacher ratios range from 1:22 to 1:28, depending on the class.

Xavier Senior High School, Virginia

Xavier Senior High School (XSHS) is a pseudonym for a large secondary public school located in a northern Virginia suburb. Built in 1974 to accommodate around 2,700 students, the school now serves grades 9 through 12 and approximately 3,000 students. The facilities include 125 classrooms and 8 trailers, as well as labs for home arts, computers, science, technology, and business and vocational education. In addition, the school includes instructional and performance areas for band, chorus, fine arts, and physical education. Xavier is staffed by 7 administrators, 201 teachers, 8 teaching assistants, and 55 classified staff.

A diverse student population attends Xavier. Approximately 62% of the student body is identified as white, non-Hispanic. African-American (20%), Hispanic (10%), and Asian/Pacific Islander (5%) students are also represented. Because the school serves a community with a military installation, the student mobility rate approaches 19%. Approximately 15% of students qualify for free or reduced lunch. Seven percent of students participate in special education programs, 3% in English as a Second Language (ESL), 11% in gifted education, and 1% in work study. Sixty percent of the student body is enrolled in vocational education courses. Average daily attendance is approximately 92%, while average class size ranges from 19-25. The 1997-98 school profile reveals a 92% graduation rate based on 12th grade enrollment.

The community surrounding Xavier is relatively affluent, with 1996 estimates of mean household income reaching approximately $55,000 (U.S. Bureau of the Census, 1999). The percent of county residents estimated to be in poverty in 1996 is 5.4. According to 1990 Census statistics, 87.8% of county residents over the age of 25 had graduated from high school; 27.6% had graduated from college.

The county in which Xavier is situated has undergone tremendous growth since 1980, according to the Census Bureau. The overall county population increased 49.1%, jumping from 144,636 in1980 to 254,464 in 1997. The majority (82.8%) of residents are White, but the percentage of African American residents (12.8%) approximates that of the larger U.S. population.

Research Foundation of AEL's Quest Project

Based upon principles of inquiry, collaboration, and action research, the Quest project has supported and investigated ongoing school improvement efforts since 1996 through twice-yearly conferences; summer symposia on topics of interest to participating schools; a Scholars program in which participants collaborate with Quest staff in research efforts; project staff visits to participating schools; communication via listserv and mailings; and the establishment of a Quest network of schools (Walsh & Sattes, 2000). The Quest framework for continuous school improvement is included in Appendix A.

The project is grounded in school change literature suggesting that subjectivity and personal growth are essential to the change process (Fullan, 1991). In other words, significant change cannot occur unless it has some meaning to the individuals responsible for its realization. This distinctly constructivist approach to school reform has implications for how external facilitation agencies, such as AEL, introduce, describe, and support change strategies to school personnel. For instance, Quest staff chose to include time and methods for facilitating individual reflection on practice during project events.

Yet because individual development takes place within a variety of social contexts, including school communities, staff designed the Quest network with attention to the ways shared vision, goals, and sense of community support ongoing school improvement (Barth, 1990; Hord, Rutherford, Huling-Austin, & Hall, 1987; Postman, 1995; Sergiovanni, 1994). Similarly, school culture may impede or enhance significantly the viability of school improvement work (Richardson, 1996; Ryan, 1995). If a school community shares certain norms, such as self-evaluation, curiosity, proactivity, and high performance expectations, reform efforts are hypothesized to fare better than those in school cultures that do not possess such norms.

This perspective has had implications for the Quest project. Network staff often grounded the presentation of novel change strategies in stories detailing other network schools' use of such approaches. Many techniques supporting continuous improvement introduced by project staff were intended to nurture the school context. The Protocol process, for instance, is a structured means for faculty to discuss student work collaboratively, at once focusing teacher attention on instruction and

encouraging the development of professional community, shared understanding, and collective purpose.

Other research suggests that school administrators must assume a collaborative role in decision-making if reform efforts are to succeed (van der Bogert, 1998), and that instructional and curricular goals must be informed by a diverse contingent of school stakeholders, including parents, students, and community members (Barth, 1990; Sergiovanni, 1994). As a result of this research, Quest staff invited school administrators, teachers, parents, and high school students to network gatherings and presented strategies to enable shared decision making.

Quest staff were also attuned to literature suggesting that honoring the purpose of education enhances school change, in part by connecting school staff to the meaning of their work. Wiggins (1993), for instance, argues that assessment strategies ought to serve multiple ends, not the least of which is to provide information for ongoing teaching and learning. In other words, assessment, along with any other educational practice, should support the enrichment of students' intellectual lives; assessment for its own sake or for the satisfaction of mandate alone may not contribute to the ultimate aim of education. In the final reckoning, education generally and reform endeavors specifically need to nurture a host of attributes enabling students to make use of their education to lead thoughtful, productive lives (Perkins, 1995; Postman, 1995).

In sum, the research upon which Quest is based has had ramifications for *what* the project has been and *how* the project has been implemented. Opportunities for writing about education and change were structured to give network participants the otherwise rare chance in their busy professional lives to reflect on their own practice. Storytelling, group activities, and the network itself allowed participants occasion to exchange ideas, strategies, and struggles, as well as to forge new professional friendships. School teams were encouraged to invite diverse members of their school communities to participate in Quest, and discussions during network events centered squarely on the meaning of education and techniques to support such meaning.

Quest Activities

In the summer of 1996, Quest staff at AEL began working with teams from school communities in three West Virginia county school districts to invigorate efforts for continuous school improvement, using a variety of techniques for gathering input from all those with a stake in their local schools (Howley-Rowe, 1998a). This first learning community, called Leadership to Unify School Improvement Efforts (LUSIE), consisted of school teams including students, teachers, administrators, parents, and community members. Ultimately, this group wrote individual school visions and improvement plans, and co-authored (with AEL) *Creating Energy for School Improvement* (1997), a supplemental guide for those poised to write their own state-mandated school improvement plans.

Quest staff also were committed to creating learning communities devoted to exploring continuous school improvement across the AEL region of Kentucky, Tennessee, Virginia, and West

Virginia. Hence, staff scheduled a pilot Inquiry Into Improvement conference in April 1997 for selected high schools in the region. Schools were selected in several ways. Some schools were recommended for the Quest experience by central office staff or school administrators. Other schools were asked to join Quest because they had participated in previous AEL programs. Still other schools were invited because Quest staff believed they were primed for the kind of collaborative inquiries into school improvement that Quest was designed to provide.

In October 1997, in Roanoke, Virginia, another conference was held for designated high schools in the AEL region, this time with an explicit emphasis on forming and nurturing a network of schools (Howley-Rowe, 1998b). A similar conference was held in Nashville, Tennessee, for designated elementary schools in November 1997 (Howley-Rowe, 1998c). In order to facilitate the development of a Quest school network and to continue to encourage continuous school improvement efforts within network schools, staff planned a sequence of events in 1998 following these initial conferences. Dissatisfied with the conventional and prescriptive connotation of the word conference, Quest staff chose to call these network meetings rallies. Thus, all events previously called conferences are now termed rallies.

The high school network met a second time on February 8-10, 1998, at the Pipestem State Park Resort in West Virginia (Howley-Rowe, 1998d), following which the elementary school network participated in a rally on February 22-24, 1998, in Lexington, Kentucky (Howley-Rowe, 1998e). During the summer, 11 network members participated in the Quest Scholars Program, meeting at a colloquium in Charleston, West Virginia, on July 16-18, 1998, to collaborate with project staff in ongoing efforts to conceptualize, design, and research Quest (Howley-Rowe, 1998f). Finally, in August, network members and other educators in AEL's region participated in a symposium on assessment of student work (Howley-Rowe, 1998g).

From the high school network rally in October 1997 to the August 1998 summer symposium, Quest staff hosted six network events. The Quest network contained an essentially stable membership, although there were differences in the number of school teams that attended each event and in the frequency that school teams attended gatherings. Project staff recently investigated this phenomenon, finding that administrative support for participation in the network was the factor reported to be most important to schools' initial and sustained involvement in Quest (Howley-Rowe, 1999a).

Beginning their second year of network activity, Quest staff invited the elementary and high school networks to attend a rally together on November 2-3, 1998, at the Glade Springs Resort, near Daniels, West Virginia (Howley-Rowe, 1999b). Approximately half of the Quest Scholars met on November 1, 1998, to plan with project staff several rally activities. Scholars from the high school network met for three hours on February 14, 1999, prior to a high school network rally held on February 15-16 in Roanoke, Virginia (Howley-Rowe, 1999c). A similar rally was held for elementary network members on February 22-23, 1999, in Lexington, Kentucky (Howley-Rowe, 1999d).

A second Scholars colloquium was convened from July 12-15, 1999, at Mountain Lake Resort, Virginia (Howley-Rowe, 1999d). The primary purpose of this colloquium was for Quest staff and Scholars to collaborate in evaluating and writing about the project, ultimately contributing written pieces to a book about the Quest network. In addition, a second summer symposium was convened in Gatlinburg, Tennessee, July 26-27, 1999 (Parrish & Howley-Rowe, 2000).

The third year of Quest events began with two rallies and a Scholars meeting in November 1999 in Bristol, Virginia. A rally for elementary schools was conducted from November 11-12, 1999. On November 13-14, Scholars met to discuss writing about their experiences with school improvement during Quest and to consider the development or revision of several Quest instruments. And a high school rally was held November 15-16. Network high schools met again from February 14-15, 2000 in Roanoke, Virginia. Elementary schools participated in a rally from February 17-18, 2000 in Lexington, Kentucky. Evaluation of these events was not conducted as staff turned their efforts to summative evaluation of the project; Quest and the 1996-2000 REL contract funding the project would come to an end in November 2000. Summative evaluation was conducted in the form of case studies of four schools, one per each AEL state (Howley-Rowe, 2000a-d). Formative and summative evaluation design and methods are described in the next section of this report.

METHODS

Summative Evaluation of Quest

Quest staff delineated several evaluation questions they hoped summative evaluation would address. These questions were categorized in terms of inputs and outputs, or independent and dependent variables. In other words, staff wanted to understand the relationships between issues such as the extent of involvement in Quest and school-specific improvement efforts inspired by Quest, as well as the extent to which professional learning community was enhanced or to which participating schools approximated the Quest framework of continuous improvement. More succinctly, Quest staff hoped to learn from summative evaluation what impact participation in Quest had upon schools, individuals within them, and upon the network as a whole.

Summative evaluation questions and the instruments or methods used to answer them are listed below in Table 1.

Thus, summative evaluation of Quest is intended to answer the questions delineated in Table 1 formulated by Quest staff and the evaluator. Summative evaluation will describe the impact Quest had upon schools and their school communities, providing some evidence of the effectiveness of the project.

Table 1
Summative Evaluation Questions and Instruments/Methods

Independent variables/inputs	**Instruments/Methods**
To what extent do Quest team members think their schools have enacted Quest components?	Innovation Configuration Checklist
What specific Quest related activities have schools participated in?	History of involvement
What have schools undertaken as a result of Quest?	Faculty focus group Quest team member interviews
Dependent variables/outcomes	**Instruments/Methods**
Has Quest enhanced professional learning community in network schools?	*School Staff as Professional Learning Community* instrument pre- and post-test
To what extent do members of the Quest team think their school approximates the Quest framework, and to what degree is this attributable to Quest?	Reflective Assessment instrument
What have been the changes in student achievement during Quest participation?	Achievement data School report card

Dependent variables/outcomes	Instruments/Methods
What has been the impact of Quest on individuals, schools, and of what value has the network been?	Quest team member interviews
What have schools undertaken as a result of Quest, and what have been the results?	Faculty focus group Quest team member interviews
What have been the results of school projects undertaken due to Quest?	School data about results of school projects
What do network participants report has happened at their schools due to Quest? In what other ways has Quest been effective?	School stories

Case Study Methods

A case study approach was taken for summative evaluation of the Quest project. Given that Quest staff were most interested in understanding the impact of the project on various levels, from the individual to the school to the network, the case study method seemed appropriate. In addition, project staff were committed to understanding project impact from the perspectives of various participants in the network, including students, teachers, parents, and administrators. Case studies involve in-depth "multi-perspectival analyses" (Tellis, 1997) of single systems or phenomena; they rely on clearly delineated boundaries rather than on sampling (Stake, 1995). The focus, depth, and ability to account for multiple viewpoints associated with the case study approach led Quest staff to consider using such a method.

Moreover, formative evaluation had revealed the high level of satisfaction participants had with Quest and the great extent to which the project met its goals at each event (Howley-Rowe, 1999a-c, 1998a-f). Exploratory research also indicated various reasons some schools were more involved in the network than others (Howley-Rowe, 1999d). These sources of information convinced project staff that Quest had made some impact on those involved. Quest staff were, therefore, more interested in summative evaluation that elucidated *in what ways* Quest had been of value to schools and individuals in the project than in evaluation focusing solely on quantitative outcome measures.

Hence, summative evaluation of the Quest project includes case studies of four network schools. The schools were selected for their high level of involvement in Quest, varied interpretations and uses of the project, and diverse locations and demographic constitutions.

For example, while one school used Quest to support parent involvement programs, another discovered a variety of inquiry techniques to improve student writing. One small elementary school is located in a rural, impoverished Appalachian area, whereas a very large high school is in a relatively wealthy suburb of the nation's capital. All four schools, nonetheless, found Quest flexible

enough to accommodate their very different goals for improvement and structured enough to provide constructive strategies supporting change.

A strength of case studies is their reliance on triangulation of data to provide a more comprehensive description of the objects of study than might be rendered by use of a single research method. Using several data sources in order to corroborate theses is what Brewer and Hunter (1989) call "multimethod research." This approach posits that the strengths of each method will compensate for the weaknesses in others, ultimately providing a more complete account of that being studied.

On the other hand, the case study approach has been criticized for its "dependence on a single case [which] renders it incapable of providing a generalizing conclusion" (Tellis, 1997, p. 3).Although generalization to populations is certainly compromised by the case study method, generalization to theory is not as problematic if case studies are conducted with sufficient rigor and transparency. Hence, conclusions generated by case studies can be used to generalize by synecdoche as "a claim that the essential features of the larger social unit are reproduced in microcosm within the smaller social unit, and that by studying them in micro we might make inferences about the macrostructure of which they are a part" (Brewer &Hunter, 1989, p. 123).

Both qualitative and quantitative methods contributed to this evaluation component of the Quest project. During project events, the evaluator engaged in participant observation (Becker & Geer, 1957; Emerson, 1983; Glazer, 1972; Hammersley & Atkinson, 1983; Miles & Huberman, 1994), a method highly suited "for studying processes, relationships among people and events, the organization of people and events, continuities over time, and patterns" (Jorgensen, 1989, p. 12). Furthermore, consistent with the Quest paradigm, participant observation involves "a flexible, open-ended, opportunistic process and logic of inquiry through which what is studied constantly is subject to redefinition based on field experience and observation" (Jorgensen, 1989, p. 23). This method "is a commitment to adopt the perspective of those studied by sharing in their . . . experiences" (Denzin, 1989, p. 156), thereby enabling researchers to evaluate how an event or process appears and feels to participants. Finally, participant observation places the evaluator squarely in the field, rather than in the office or on the phone, allowing for the collection of richer, more directly acquired data (Patton, 1980).

Denzin (1989) describes four variations in participant observation strategies: the complete participant, the participant as observer, the observer as participant, and the complete observer (pp. 162-65). The evaluator played a role more akin to the participant as observer, participating in ongoing project activities as appropriate but not concealing data collection.

In order to corroborate the theses generated by participant observation, the evaluator also performed other data collection and analysis activities. The evaluator and a trained Quest consultant conducted site visits to the four case study schools in the winter and spring of 2000. Semi-structured individual interviews were conducted with Quest team members using a predesigned protocol. In addition, semi-structured group interviews were conducted with members of the school faculties who

had been minimally or not at all involved in Quest events. Semi-structured group interviews were conducted at two schools as well. Finally, Quest team members at each school completed the Reflective Assessment questionnaire.

Pre- and post-test scores on the *School Professional Staff as Learning Community* were analyzed to discern if case study schools had become more like professional learning communities over the course of their participation in Quest. This instrument was first administered to all network schools in December 1997, and again in November 1999 as the project drew to a close. The surveys were sent to a contact person at each network school, who distributed the instruments to faculty, then collected and returned completed surveys to Quest staff.

Another instrument completed by Quest participants at the close of the project was an Innovation Configuration Checklist detailing the essential components of Quest as well as variations thereof. All network participants in attendance at the February 2000 rallies were asked to complete the Checklist.

Other data sources included state-mandated achievement test scores. Analyses of these data varied, however, as the type and amount was not consistent across schools. In other words, whereas individual student scores were available from Bending Knee Elementary and Tinder Elementary, allowing the conduct of tests of statistical significance, only summary data were available from Bowman Elementary and Xavier Senior High School.

Identical instruments and individual and group interview protocols were used across the four case study sites to allow for comparative analyses, should staff consider such comparisons useful.

Table 2 presents the times at which various data collection activities were conducted in each of the four case study sites.

The case studies possess several limitations. Achievement data were not collected systematically throughout the course of Quest, which ultimately resulted in the gathering of disparate types of data. Whereas student level data were available from two case study sites, only summary data were available from two others. In addition, student demographic data were not accessible; disaggregation of achievement data was therefore not possible, leaving concerns about the equity of Quest effectiveness unaddressed.

The case studies would have benefitted from more onsite observation by the evaluator. In addition, they would have been strengthened had they been identified earlier in their Quest participation. Much of the interview data is retrospective, for instance, because site visits were conducted at the end of the project.

Table 2
Case Study Data Collection Activities

Data Collection Activity	Bending Knee	Bowman	Tinder	Xavier
Site Visit	May 8, 2000	February 1-2, 2000	May 4-5, 2000	April 3-4, 2000
Quest Team Member Interview	N = 7	N = 5	N = 6	N = 9
Faculty Focus Group	N = 10	N = 4	N = 12	N = 10
Student Focus Group	N/A	N = 6	N = 12	N/A
Quest Team Reflective Assessment	N = 7	N = 5	N = 6	N = 9
School Professional Staff as Learning Community Instrument	Pretest November 1998; N = 14 Posttest November 1999; N = 13	Pretest January 1998; N = 22 Posttest February 2000; N = 33	Pretest February 1998; N = 22 Posttest March 2000; N = 17	Pretest December 1997; N = 149 Posttest N/A
Innovation Configuration Checklist	February 2000 N = 5	February 2000 N = 4	February 2000 N = 3	February 2000 N = 10
Student Achievement Data	Stanford Achievement Test, Ninth Edition; Student Level Data from 1997-2000	Tennessee Writing Assessment Test; Summary Data from 1997-1999	California Achievement Tests, Fifth Edition; Student Level Data from 1997-1999	Virginia Standards of Learning Tests; Summary Data from 1998-1999

FINDINGS

For the purposes of this paper, only three primary types of findings are discussed. Pre- and posttest scores on the *School Professional Staff as Learning Community* instrument are reported, as are student achievement data as available from participating case study schools. Group and individual interview findings are also described. To provide the context of schools' participation, Table 3 briefly describes the major activities undertaken by the schools as a result of their involvement in Quest.

Bending Knee Elementary used the Protocol Process, a structured method for discussing student work, to improve student writing. Staff also became involved in the Questioning and Understanding to Improve Teaching and Learning (QUILT) program and piloted the SMART (Successful, Motivated, Autonomous, Responsible, Thoughtful) Parenting Workshops developed by Quest staff. Bowman Elementary also used the Protocol Process to focus on student writing. In addition, Bowman staff participated in the Data in a Day (DIAD) process, a school self-assessment technique, and piloted the use of student-led conferences in place of more traditional parent-teacher conferences. Tinder Elementary adopted the theme of SMART learners, using it throughout the school on bulletin boards, t-shirts, and the student pledge. Student-led conferences were also piloted at Tinder, and teachers collaborated with AEL staff in the conduct of action research on declining math test scores. Finally, Xavier Senior High School used the Protocol Process as a means to assist teachers as they undertook to help their juniors in completing a newly mandated research paper successfully. In addition, Xavier faculty, staff, students, and community members participated in DIAD to examine the effectiveness of the school's 4X4 block schedule.

Table 3
Summary of Quest Activities in Case Study Schools

School	Quest Activities
Bending Knee Elementary	Protocol Process, SMART Parenting Workshops, QUILT Program
Bowman Elementary	Protocol Process, Data in a Day (DIAD), Student-led Conferences
Tinder Elementary	Adoption of SMART Theme, Student-led Conferences, Math Action Research
Xavier Senior High School	Protocol Process, DIAD

Student Achievement

Tests of statistical significance were run to discern any significant increases in student performance over several years of Bending Knee's participation in Quest. Results for Bending Knee SAT9 and Tinder CAT5 achievement test data are presented in Table 4.

Analyses of variance (ANOVA) revealed five statistically significant Bending Knee SAT9 increases for grades three and four. With an *F*-ratio of 3.219 (*F* probability of .029), reading scores were statistically significantly higher in 2000 than they had been in 1997. Likewise, improvements in third grade language scores were statistically significant, with 1999 scores exceeding 1997 scores (*F*-ratio of 2.862, *F* probability of .044). Third grade math scores were statistically significantly higher in both 1999 and 2000 than they had been in 1997 (*F*-ratio of 8.300, *F* probability of .000). Third graders in 1999 and 2000 also scored at significantly higher levels than had those in 1997 on the total basic skills inventory (*F*-ratio of 5.300, *F* probability of .003).

One statistically significant difference was located among fourth grade scores. Fourth graders in 2000 scored at significantly higher levels than had their counterparts in 1998 (*F*-ratio of 3.362, *F* probability of .043). Three statistically significant increases were found among scores combined from the third through fifth grades at Bending Knee. Bending Knee students scores statistically significantly higher in 2000 than in 1997 on the language section of the SAT9 (*F*-ratio of 3.002, *F* probability of .033). Math scores in both 1999 and 2000 were significantly higher than in 1997, with an *F*- ratio of 6.046 and an *F* probability of .001. Test-takers in 2000 scored at statistically significantly higher levels than those in 1997 on the total basic skills inventory (*F*-ratio of 3.255, *F* probability of .024).

Statistical significance alone, however, does not indicate the meaningfulness of findings; rather, it indicates the rareness of findings. The calculation of effect size allows the conversion of statistically significant results into the standard deviation metric, providing a better analysis of practical significance.

Effect sizes for statistically significant third grade increases ranged from small ($d = .37$ for language, $d = .39$ for reading) to moderate ($d = .50$ for the total basic skills inventory, $d = .63$ for math). For the statistically significant increase in fourth grade language scores, the effect size was small, with $d = .37$.

Effect sizes for statistically significant growth in combined third through fourth grade scores were similarly small. With an effect size of $d = .24$, language increases were small. And with respect effect sizes of $d = .35$ and $d = .26$, growth in math scores and total basic skills scores was also small.

In sum, then, improvement trends are apparent at Bending Knee between the years of 1997 and 2000. Although some of the growth is likely not due to chance alone, only third grade math and total basic skills score increases seem to possess any practical significance. Quest may have influenced the improvements in achievement at Bending Knee; however, such growth is relatively limited. Given that these findings are nonetheless promising, the school may see further growth as staff continue to implement Quest-related initiatives.

Tinder Elementary evidenced fewer statistically significant improvements in achievement over the course of the school's participation in Quest. Via analyses of variance (ANOVA), only three

statistically significant increases at the .05 level in CAT5 national percentile scores were found within tested grades. Only one statistically significant increase was located within the overall school data: Science national percentile scores were higher in 1999 than in 1997 and 1998 (*F* ratio of 4.978, *F* probability of .01).

Table 4
ANOVA Results for Bending Knee SAT9 and Tinder CAT5 Achievement Test Data

Bending Knee SAT9 Section	df	*F*-ratio	*F* probability	Significant Differences by Testing Year
3rd Grade Reading	3 59	3.219	.02*	2000 > 1997
3rd Grade Language	3 59	2.862	.04*	1999 > 1997
4th Grade Language	2 47	3.362	.04*	2000 > 1998
3rd Grade Math	3 59	8.300	.00*	1999, 2000 > 1997
3rd Grade Total Basic Skills	3 59	5.300	.00*	1999, 2000 > 1997
Whole School Language	3 142	3.002	.03*	2000 > 1997
Whole School Math	3 142	6.046	.00*	1999, 2000 > 1997
Whole School Total Basic Skills	3 142	3.255	.02*	2000 > 1997
Tinder CAT5 Subsection	**df**	***F*-ratio**	***F* probability**	**Significant Differences by Testing Year**
4th Grade Math Total Battery	2 314	3.291	.04*	1999 > 1997
4th Grade Study Skills Subtest	2 314	3.865	.02*	1998 > 1997
5th Grade Science Subtest	2 285	8.646	.00*	1999 > 1998, 1997
Whole School Science Subtest	2 1520	4.978	.01*	1999 > 1998, 1997

*Statistically significant at the .05 level.

With an effect size of $d = .14$, improvements in fourth grade total math battery scores were small. Similarly, fourth grade study skills scores had a small effect size of $d = .16$. The largest effect size of $d = .25$ for increases in fifth grade science scores between 1997 and 1999 was nonetheless small, according to conventional classifications of the meaning of effect sizes (Cohen, 1988). With an effect size of $d = .08$, improvements in science scores for the whole school were quite small.

In sum, Tinder students' achievement showed some gains, particularly in the third and fourth grade trends between 1997 and 1999. But overall, little statistically significant change took place, and declines were found as well, particularly in the second and sixth grades. Where statistical significance was found, effect sizes revealed that such improvements were not substantial.

Quest appears to have had little bearing on standardized student achievement at Tinder, although an improvement trend was noted in the third and fourth grades, and somewhat in the fifth grade. This relative lack of impact is not surprising, however, given that many of the school's efforts undertaken through Quest were not squarely and clearly directed at increasing achievement scores, as school staff found other foci to be of greater relevance.

Student level data were not available from Bowman Elementary. However, a brief analysis of the school's writing assessment scores between 1997 and 1999 suggests that, following staff use of the Protocol Process to examine student writing in 1998, the percentage of students scoring at least at the competent level increased (see Table 5). During the 1998-99 school year, Bowman fourth-grade teachers used the Protocol process as a vehicle for examining and discussing student writing in an effort to improve the percentage of students achieving at least at the proficient level on the Tennessee writing assessment. Principal Vickers saw the use of Protocol as clearly related to improved writing performance. "I think the increase in the writing assessment is . . . directly attributable to Quest because of the structured reflection that came out of it and the collaboration of teachers," he reported.

In 1997, 51% of Bowman fourth grade students received at least a score of "competent" on the Tennessee writing assessment. However, by 1998, the percentage of students scoring at least "competent" had dropped to 44% (although a slightly higher percentage of these students scored in the "strong" and "outstanding" categories than they had the previous year). Aiming to improve the following year's scores, the principal introduced Protocol, with the support and technical assistance of Quest staff, in the fall of the 1998-99 school year as a means for fourth grade teachers to focus on ways to enhance teaching and learning of writing.

Even the teachers participating in the focus group who had not been involved in the process knew of the impact its use had made upon writing scores. One such teacher reported, "I know in fourth grade, they were really singing praises about Protocol with . . . last year the writing assessment. We saw a tremendous increase in their writing scores from the year before." By spring 1999, the percent of fourth graders receiving a score of at least competent had risen to 63%.

Table 5
1997-1999 Bowman Elementary Tennessee Writing Assessment Percentages*

Rubric Score	1997	1998	1999
Outstanding	0%	4%	1%
Strong	7%	11%	12%
Competent	44%	29%	50%
Limited	36%	43%	29%
Flawed	11%	9%	4%
Deficient	0%	0%	0%
Blank or Refusal	3%	4%	5%

* Percentages may total to more than 100% due to rounding.

Because the Virginia Standards of Learning (SOL) tests were first administered in 1998, and are not comparable with previously administered state-mandated tests, data are available for only two of the four years Xavier participated in Quest. In addition, 1999-2000 test results were not accessible at the time of this writing. Moreover, the only statistics attainable by the evaluator were the percent of students passing each SOL test. Analysis of Xavier student achievement is therefore very limited.

The percent of Xavier students passing the English SOL tests dropped somewhat in 1999 (see Table 6). For instance, the percent passing the total English test dropped by 3.53 percentage points, from 75.38% in 1998 to 71.85% in 1999. Quite differently, Algebra scores rose dramatically. The percent of Xavier students passing the Algebra I test, for example, rose from 16.36% to 38.04%, a total of 21.68 percentage points. Likewise, history scores improved, increasing by between 11.59 and 12.64 percentage points. Gains in science scores were more modest. Although the percent passing the Earth Science test rose by 8.57 percentage points in 1999, the percent passing the Chemistry test dropped somewhat by 1.68 percentage points.

School accreditation in Virginia will become dependent in 2007 on the percent of students passing the SOL tests (VDOE, 2000). In October 1998, the Virginia Board of Education determined that 70% of students in each accreditation-eligible school must pass each appropriate SOL test in order for that school to receive full accreditation. Schools not achieving the standard may be accredited provisionally or not at all; these schools will receive an academic review from the VDOE and will be required to submit an improvement plan.

Table 6
Percent of Xavier Students Passing SOL Tests, 1998-1999

SOL Test	1997-98	1998-99	Difference
English Reading/Literature	71.80	68.85	- 2.95
English Writing	79.25	74.88	- 4.37
English Total	75.38	71.85	- 3.53
Algebra I	16.36	38.04	+ 21.68
Geometry	53.13	49.19	- 3.94
Algebra II	12.90	48.66	+ 35.76
Math Total	27.88	45.05	+ 17.17
U.S. History	18.36	31.00	+ 12.64
World History from 1000 A.D.	28.53	40.12	+ 11.59
History Total	24.06	36.10	+ 12.04
Earth Science	42.96	51.53	+ 8.57
Biology	73.55	75.00	+ 1.45
Chemistry	69.73	68.05	- 1.68
Science Total	63.12	65.17	+ 2.05

Xavier students fell below the standard in 1999 for the English Reading and Literature test, although they achieved slightly above the standard in 1998. All math and science scores remained below the 70% standard in both 1998 and 1999. And although the percent passing the Biology SOL test closely approximated the standard both years, the remaining Science scores did not.

Overall, an apparently substantially higher percentage of Xavier students passed three of the four math SOL tests in 1999 than in 1998. The percent passing history and most of the science tests likewise increased in 1999. English, however, fared slightly less well in 1999 than in 1998. Although participating in Quest may have had some impact on student achievement at Xavier, it is very difficult to determine the extent of such influence given the limitations of the data available.

School Professional Staff as a Learning Community

At the close of the Quest project, staff at network schools were asked to complete a post-test of the *School Professional Staff as Learning Community* survey developed by Hord (1997; Meehan, Orletsky, & Sattes, 1997) and based on research about the attributes characterizing learning communities. This instrument consists of five main subsections: shared leadership, shared visions,

collective creativity, peer review, and supportive conditions and capacities (Cowley, 1999). Subsections contain several individual items respondents are asked to rate using a 5-point Likert-type scale, with anchor points of low (1) and high (5). However, the field test of the survey revealed that it measures one overall construct rather than five distinct factors (Meehan, Orletsky, & Sattes, 1997). This construct could be described as the extent to which school staff constitute a supportive professional learning community. Therefore, an overall score is calculated for the instrument; the higher the score, the more respondents feel their school is a positive learning community. The instrument contains 17 items, and the overall score may range from 17-85 points.

Pre- and posttest dates for each case study school are shown in Table 2 on page 12.

T tests of total Professional Learning Community pre- and posttest scores revealed that the differences were likely not attributable to chance in two cases (see Table 7). It should be noted that the assumptions of the *t* test were violated in this study. The sample was not random, nor was it assumed that the data were drawn from a normally distributed population. Phillips (1982) contends, however, that "since those assumptions now appear to be far less important than originally thought, the recent trend toward increasing use of distribution-free tests is currently being reversed" (p. 139). Likewise, Glass and Hopkins (1984) report research suggesting that violation of the assumptions of normality and homogeneity of variance has little impact upon the robustness of *t* tests. For these reasons, Quest staff chose to use the *t* test to explore the statistical significance of pre- and posttest differences on the Professional Learning Community instrument.

The t-value of 7.612 was significant at the .05 level of statistical significance, indicating that the differences in mean ratings at Bending Knee were likely not due to chance. And with an effect size of $d = 2.29$, it is very likely that the increase in scores on the Professional Learning Community instrument has both statistical and practical significance. In fact, an effect size of this magnitude is well above Cohen's (1988) convention in which large effect sizes are those between $r = .80$-1.00. Hence, this effect size represents substantial growth in the learning community at Bending Knee.

The *t* score of 3.81 was statistically significant at the .05 level for the 17 Bowman respondents, indicating that the school's higher post-test score was likely not due to chance. With $d = 1.10$, it is very likely that the change in Bowman scores is not due to chance and has practical meaning as well.

The Tinder mean score on the Professional Learning Community instrument declined slightly on the posttest, from 65.00 (SD 12.18) in 1998 to 62.41 (SD 10.57) in 2000. The *t* value of .696 was not significant at the .05 level of statistical significance. In other words, the difference in pre- and post-test scores were more likely due to chance than to a substantive change in Tinder as a learning community.

Quest schools were asked to readminister the instrument during the final year of the project. However, due to a change in administration at Xavier, this was not accomplished. Data are only available for the initial administration of the *School Professional Staff as Learning Community* survey. A total of 149 Xavier staff completed and returned the instrument. With a mean score of

54.56 (SD 13.94), Xavier staff appeared to believe that they were somewhat of a professional learning community in 1998.

Table 7
***T* Test Results for the Professional Learning Community Instrument**

School	Administration of Professional Learning Community Instrument	N	Mean	SD	*t*	Sig.
Bending Knee	Pre-test total score	14	49.30	10.57	7.61	.00*
	Post-test total score	13	73.69	4.64		
Bowman	Pre-test total score	17	62.94	13.07	3.81	.00*
	Post-test total score	17	77.35	5.70		
Tinder	Pre-test total score	22	65.00	12.18	0.70	.49
	Post-test total score	17	62.41	10.57		
Xavier	Pre-test total score	149	54.56	13.94	N/A	N/A
	Post-test total score	N/A	N/A	N/A		

*Statistically significant at the .05 level.

Focus Group and Individual Interview Findings

Bending Knee Elementary

Quest Activities

Protocol. During the 1999-2000 school year, Bending Knee staff began using the Protocol process, of which they had learned during an SCC meeting, in an effort to improve student writing. This technique provides a structured means for staff to examine student work, offer supportive ("warm") and critical ("cool") feedback about the design of the work, and reflect on the best ways to improve similar assignments. An aide described the process in this way: "I think it's helped the teachers a lot . . . They talk about what they could do and what they shouldn't do and you know the things that's going to help a lot better." During a faculty focus group, teachers had the following exchange about using Protocol:

"Teacher 1: And we bring writing samples that our students have done in class and share it with all the teachers.

Teacher 2: And problems.

Teacher 3: Yeah, brain storm and kind of help those children that are low or not doing what we think they should be."

And during a second faculty focus group, teachers reported the following:

"Teacher 1: Well we've done the Protocol. We've been Protocoling like once a week about our writing. We feel we, we pinpointed that one weakness in our school was our writing skills, so we decided that we would Protocol around that problem, that idea, and we meet once a week to discuss and present the students work in the protocol process.

Teacher 2: I thought it was difficult it first until we kind of got into a routine with . . . the idea that just like wait time, it's hard not to interfere with each other's Protocol system when you've got to sit back and be patient and wait until, you know, we kind of reflect on what you're going to say and I don't, I don't know how the rest of them felt, I thought it was difficult to begin with, but it, it became easier.

Teacher 3: Well, it was a little intimidating . . . because when they said, 'warm feedback, cool feedback,' you know, I thought, 'Hey, they're going to come in here and blast us for what we're doing,' you know, 'You're not doing the right things,' and . . . you don't want to be under the gun.

Teacher 4: No it's good . . . We don't ever have anyone say anything bad about what you do. You know they'll say, 'Well, you know, maybe we could have done it this way," or something, but there's no blasting at all, so it's real good."

Protocol Results. Bending Knee staff reported a number of positive outcomes from their participation in the Protocol process. Successful results were mentioned in 31 comments from interview and focus group participants. Noted in ten instances was the way Protocol facilitated the sharing of ideas among faculty. As one such respondent phrased it, "You know, there's things that you forget over the years . . . and then in the meeting somebody will bring it up and say, 'Oh yeah, I remember now.' You know, I draw on my hand and put my subject in the palm of my hand and then write the ideas on the fingers. I forgot that, I did it years ago but I forgot. Somebody brought it up, and I've been doing it again. My kids love it." Another reported, "It's been a good experience in that we have learned, we've talked to other people about what they do in their classrooms and we find out what they do and then it works and then we try it and it's a good way of sharing and spring boarding off of other people's ideas. Maybe you didn't exactly do it the way they did, but you would get an idea and then you would elaborate on that."

One faculty focus group participant additionally observed that the Protocol process allowed ideas to be shared among teachers of different disciplines: "It's helped me a lot listening to the language arts teachers apply some stuff I'd forgotten in teaching math . . . It helps, to hear them come back at you."

Five comments were made concerning the increase in collaboration among teachers, particularly in terms of the enhanced focus on student work and improving instruction. As one teacher put it, "I think one of the most impacting things has been forcing us to meet with each other and forcing us to look at each other's teaching and to help each other. For me that's been the most

impacting thing because I get to hear what other people are doing and we get to discuss it and the Protocol process and all has been a real focus for me . . . I've gained things from teachers that I would have never in the past because we never got to meet with each other before and even if we did it was never in a situation where we really sat down and [asked], 'What are we doing in class, what was good about it, what do we need to improve?' and we do that now." An interviewee said, similarly, "Well, they [were] talking and everything but . . . just, you know, unless you do just get together for lunch or something you just talk about other things. But now when you do Protocol it's about the school, it's about the students." According to these respondents, Protocol enabled more collaboration and communication centered on issues of pedagogy.

Informal assessments of improvements in student writing were noted five times, and one teacher reported writing more herself than she had previously. Two comments suggested that teachers held increased expectations for their students since the use of Protocol. Another two indicated that the development of rubrics to assess writing had been an outcropping of faculty participation in the Protocol process.

The remaining comments were idiosyncratic. One interviewee reported an increase in writing across the curriculum, while another believed that preschool students were more prepared to undertake journal writing in the following grades because the preschool teachers had introduced the notion to them. A new focus on the entire school was a result seen by one teacher. As she reported, "I think one thing is we've taken ownership of the whole school and not just ownership of our class. You know . . . when I had my fourth grade in here this is, that's not just my class, that's our class because we all have to work with those students and I think that's one positive thing, one really good thing that's come out of this is we've been more open to share the good things about the students as well as the bad things about the students and then work toward fixing and improving what we can."

The ability to gauge the performance of one's own students vis a vis those of other teachers was an outcome reported by one interviewee. Another believed that test scores overall had risen, while yet another simply noted that Protocol had helped the school grow.

Focus on Enabling SMART Learners. All five staff members interviewed indicated that they had collectively focused on the Quest framework component of enabling SMART learners. Three comments from two interviewees suggested that this focus made implicit sense to them. As one put it, "I think that's the
core. To me it's the core. I don't know what the other staff members would say, but I think having successful, motivated, autonomous, thoughtful learners is . . . the product that comes about because of Quest, the impact you make on children and, and I think as we look at those that's where we gear everything to . . ."

Asked to elaborate on what this focus had generated, one respondent reported that the adoption of QUILT and the use of the Protocol process had grown out of the concern to nurture SMART students. "I think we're learning a lot from each other, where we were never doing that in the past," said another interviewee.

According to the principal, the concentration on SMART learners led to increased expectations for the achievement of all students in the school. As she phrased it, "I think higher

expectations for all children. You know I think we, I think we had a high expectation for children but I think sometimes we left the word 'all' out . . . but I think that the strategies that we've learned to use through Quest, we don't look at just the top kids and what their writing looks like, we look at all kids and sometimes it's the kid who's having difficulty that the teacher brings their work to the Protocol."

A teacher believed that the focus on enabling SMART learners had enhanced collaboration among staff by concentrating their energies on nurturing all of the characteristics included in the acronym.

QUILT. Bending Knee staff were introduced to QUILT by Quest staff and implemented the program during the 1998-1999 school year. As the following exchange recorded during a faculty focus group indicates, school staff attended the initial QUILT training and then returned to train their colleagues.

"Teacher 1: It was the summer thing, I mean we spent what three days, we spent three days up to _____ Park and then they taught, they taught us what they had learned but it, it was very interesting but you know all this new stuff all at once and all these extra programs it takes you a while.

Interviewer: How was it for you to present?

Teacher 1: A total nightmare.

Teacher 2: No, they did good, they did.

Teacher 1: I mean they seemed to accept it better from one of their own than someone else coming in with it. I don't know. Did you feel that way?

Teacher 2: Yes I did.

Teacher 3: Yeah I did. You were a part of us and we didn't feel like fools in front of anybody strange, you know.

Teacher 1: I kind of thought, 'Well, if they like it . . . if they could see some good in it . . .'"

One interviewee found it difficult to begin using QUILT, but reported that the ongoing support built into the program had eased the challenges: "It was sort of difficult getting into it at first, you know, starting a new program. But since we've had meetings on it to keep us going it's been better."

Results of participation in QUILT were noted in five instances. According to two interviewees, students spent more time thinking before they responded to teacher prompts than they had previously. As one put it, "It has helped though because when I'm asking a question and even for K-1 . . . they want to talk out the answer just as fast . . . they don't even think, they just pop

something out, right or wrong. And now when I say, 'Now, this is a QUILT question,' they will try to contain their self [sic] for just a little bit to think about [it] some, and they never did before."

Another respondent thought that students gave higher level answers to questions since the adoption of QUILT. One interviewee reported that the use of "wait time," or the provision of time following a question to allow students to think about their answers in some depth, had become institutionalized at the school, extending even into the preschool program.

On an individual and reflective level, one teacher found that participation in QUILT led her to question her practice more closely. She shared in an interview, "I think it makes me question myself as a teacher everyday. Am I doing the right things with kids, and am I requiring them to do the things to make them SMART learners or to ask them the right kind of question? I know that was QUILT, but still through Quest we were involved with QUILT. And I really look at it now, and I do question . . . things we do here at school . . . We look more closely at any type of program that we might get involved with before just jumping into it now."

Network Connections. Bending Knee participants in Quest reported a variety of ways involvement with the network of project schools had been important to their continuous improvement work. Twenty comments were made about benefits of the network to school staff, nine of which concerned learning new ideas and strategies from other participating schools. "You learn a lot . . . If you just stay . . . within yourself, you don't really find a solution. It just, you know, it just bounces around. But if there's a whole lot of talk, then you might be able to take a little bit from here and a little bit from there and . . . put it all together," reported one such staff member.

Another noted that networking allowed the school to draw upon schools with experience and expertise in areas of Bending Knee need: "For example, our technology, we were cited for not . . . using technology enough in our school, and the State Department came in. And Saint Margaret, which is another Quest school, came up and did some workshops with us. And . . . we're planning a site visit there. We were working on the writing process. We knew our writing scores were down, and we needed help with that. And we knew that Fred's school [had used Protocol to examine student writing]." According to one interviewee, the network also provided participating schools opportunity to ensure that technical assistance provided by sister schools was of good quality. As she phrased it, "What's so nice is we can go and say, 'All right, we have this problem.' And they'll say, 'Okay this school does this, and this school does that, you know. So, you can see this school if you needed to talk about this. And this school is really good; they have really good technology. And this school does really good with the writing' . . . That provides that networking for you or helps you find schools that normally you would, I mean you, who knows, you might find a school, but are they doing it well?"

Interviewees made three comments suggesting that the network allowed them to share experiences and ideas with staff from schools very different from their own nonetheless facing similar issues. Said one Bending Knee teacher, "I think the liaison . . . with schools who are probably even bigger than us, maybe even urban . . . who have the same difficulties and the same problems we have and discovering what solutions they use to overcome those problems helped us think [how to] overcome what problems we were going through."

Two staff members noted that new ideas and strategies were far more convincing when learned from other schools with experience implementing them. According to one such interviewee, "One or two people can read [about an innovation] and say, 'Oh yes, let's do this. This is great. Let's try this,' and try to convince the rest of the staff, for example. But it's never as impacting and as convincing as if you are networking with somebody who is already doing this process and it's worked." Colorfully, one participant said, "It helps those who are hanging on the pier screaming and shouting kind of take a step over into the water."

Two comments were made about the support offered through the network. Bending Knee principal Ellison shared, "They help me problem solve. And it may be just a small issue, it may be a big issue. But I think that when I fall down, I know that they fell down too and that they've gotten back up and that I can get back up too." She added, "I think . . . it's given us a leaning post when we're having trouble."

The remaining responses were idiosyncratic. One interviewee indicated that the network motivated her to work and achieve: "I know they all come from good schools. And their schools are high achieving schools, and I want to be just as high as they are. It's given me a benchmark . . . to move toward." Another reported that participation in the Quest network had validated practice at the school, elaborating, "Even the way that we teach the things that we're teaching, the activities we do here at school, it seemed like everything that we were doing . . . When we would go [to a Quest event], we would hear, 'This is the thing another school's doing, and this is good.' And we're like, 'Yes, this is great, we are right.'"

Greater focus on improvement efforts was an outcome suggested by one participant, as a result of the accountability maintained within the network. "[AEL] coming here has been a big help because it really makes us focus more on what we're doing. They're coming, we know . . . we've got to be ready, and it really does make a difference." Relationships with Quest staff had been useful according to another participant, because they offered what was interpreted as unbiased feedback: "I think having AEL staff, too, as part of the networking system has helped because you can bounce ideas, you have an objective point of view."

Three additional remarks were made about the value of networking with schools from other states. All pertained to the usefulness of learning that similar challenges confront schools in different policy and state contexts. "We never get an opportunity to network outside the state unless we attend a national conference or something and [then] it's not a long term relationship building piece. But [Quest participation has] allowed us to see that at Fred's school they have state standards too, and at Dottie's school they have state standards. And they have assessment instruments, and so they're . . . traveling the same journey that you're traveling."

Bending Knee staff took advantage of the expertise of two sister schools during their involvement in Quest. Thirteen comments were made about the technical assistance site visit from staff at Saint Margaret, a small West Virginia parochial school, about their use of technology. Six interviewees described their presentation in a variety of positive ways, as "inspiring," "real good," and "very impacting." Four comments, on the other hand, revealed that the presentation had been fraught with logistical problems, including uncomfortable surroundings and difficulty with the sound level of the presenters. Although the presentation had been useful, according to two staff members,

funds were not available to implement at Bending Knee many of the efforts described by Saint Margaret faculty.

The principal noted that teachers had begun to integrate technology into instruction, despite her earlier reluctance to make technology a priority. She elaborated, "I knew we were weak in technology . . . and frankly I didn't care. I didn't really believe that technology could do a whole lot to change instruction. But . . . in the fall, when my staff went to the rally and Saint Margaret did the workshop, they were calling me—you know I didn't attend—and they were calling me and saying, 'If we could be doing this in our classroom . . .' So we had them [Saint Margaret staff] in here in February, and they did a training for the staff . . . I've seen a tremendous difference in lesson plans and utilization of technology in the classroom. And I've even come to believe that technology is a good tool."

Four comments pertained to the technical assistance site visit provided by the principal of Bowman Elementary in Tennessee on the use of the Protocol process to examine student writing and improve instruction. "Fred's school . . . had focused on that and had quite a bit of success with that. And in fact we saw that at a Quest conference, and so Fred came and did some training with us on Protocol and the writing assessment." As noted earlier, Bending Knee staff found the Protocol process to have been very useful.

Outcomes

Personal Outcomes. During interviews and focus groups, 15 comments were made about individual growth as a result of participation in Quest. Three interviewees noted that they engaged in more reflection about their individual and collective practice than they had prior to Quest. Said one such participant, "I think that it's made me step back and look at what I'm doing personally and professionally and reflect more . . . which I really had never done before we started . . . and think about what I did today and what do I want to change, what do I want to do better tomorrow. And I don't think any of us had ever really done that a lot and it's . . . made me do better."

Two respondents believed that Quest had reaffirmed their beliefs about education and change, giving them reassurance and support as they continued their improvement efforts. "I think when I first attended the first Quest conference . . . what sold me on Quest was that it reaffirmed the attitudes and beliefs that I already had, a lot . . . I'm a risk taker by nature and I like change . . . I like change and challenge, and Quest . . . kind of reaffirmed those . . . thoughts," reported one interviewee.

New strategies had been learned and used by individuals, reported two staff members. Interestingly, two respondents also noted that their social interaction skills had been strengthened because of their involvement in Quest. As one explained, "With me, it helped a lot with the interaction . . . The first one [rally] I was like really scared because they took you and set you at a table with nobody you knew . . . And that helped me because by the last one it didn't matter because I was used to it."

The principal indicated two major behavioral changes as an outcome of her involvement in Quest. First, she believed she made a greater effort to approach students positively. And second, she

reported learning to compromise with staff: "I look back at my first few years as a principal . . . My supervisor would say, 'Eva, you need to compromise,' and I said, 'No, I don't need to compromise. I'm the educator. I know what's best.' And she said, 'You'll be sorry if you don't compromise.' Well, I was sorry that I didn't compromise, but now I compromise. I do everything that I can do to find the solution if there is a problem or disagreement and deal with it at the site and not have my supervisor dealing with it." Such reflection about her practice was supported by the trusted feedback received from Quest staff, another theme reported by the principal.

The principal described the way Quest challenged her to continue improvement work at Bending Knee, explaining, "I think that we're all . . . on a road to improvement, and when you stop improving you die . . . Quest has caused me to, to maintain the energy level that's required for continuous improvement. And without sometimes this outside organization pushing somewhat, and I'm not saying in a negative way but in a positive way, and maintaining high expectations for me as a professional then . . . it causes me to rise to the occasion more than it, than possibly I would have without Quest."

Similarly, Quest enabled Ellison to reevaluate her understanding of the change process. She said, "I think I've come to understand over the last three years that it is a process and that we all change at a different rate . . . I think I'm much more patient as an administrator than I was because there were times where . . . we were beating each other up, you know, not physically, but in a sense . . . I think that using the processes like Protocol that we can bring about change in another way rather than me just saying, 'Here's an idea and I want you do to it,' and maybe they don't own the idea. But with Protocol they . . . gather ideas that they choose to own and they implement those as they are comfortable with [them] . . . I think probably that's the biggest change that's happened to me."

School Outcomes. Two respondents reported some general results of participation in Quest at Bending Knee. One interviewee indicated that the findings from the PLC corroborated her sense that collaboration among teachers had improved. "We're more open to discuss other things with each other now . . .We have really grown a lot since we filled that [PLC] survey out to begin with," she elaborated.

Another interviewee thought that teachers used more student-centered instructional strategies as an outgrowth of their involvement in Quest. She said, "In particular . . . the teachers I think were challenged to let the learning process be more learner initiated." She also indicated that teachers focused more on writing, writing instruction, and questioning techniques that support higher level thinking. Particular initiatives were supported, in her opinion, by the increased sharing among teachers. She summed up her assessment of the impact of Quest on Bending Knee in this way: "I just think Quest is a pervasive thing that kind of permeates throughout everything . . . I think the liaison that we have with AEL and Quest . . . has provided guidance in a lot of ways . . . an objective point of view . . . It validates feelings that you think and gives you new ideas for ways to conquer things you think you can't."

Student Outcomes. Aside from results from the use of the Protocol process, QUILT, and the focus on SMART learners, interviewees reported several outcomes they thought were derived from participation in Quest in general. Three comments indicated that standardized test scores had

increased progressively. One staff member said it this way: "I think that [through] the Quest program, I think that we were more open to new ideas and we were looking for an avenue in which to expand and improve education for our children as well as for ourself [sic]. And I think that the proof is in the pudding, as they say, just because our test scores are up. You know, they're not up drastically, but they are up. We've gained every year and I think that can be attributed to that."

In two instances, increased student writing was noted. Said one teacher, "Writing is a big thing. I see kids writing in class more, especially at the upper grade level where they weren't hardly writing any before. Now they're writing a lot. I think the teachers are collaborating more with the students, and the upper grade teachers didn't really do that a whole lot before . . . because of Quest and because of the collaboration, now they're doing it. And I think it's going to make a difference in kids' achievement." Similarly, one teacher added that a Bending Knee student had placed in a state contest for young writers.

During one of the faculty focus groups, teachers discussed an improvement in discipline at the school since involvement with Quest:

"Teacher: Our discipline is much better and I think that goes to show that our kids are really happier with school because we . . . don't have very many bad discipline problems at all. Just minors, you know. Maybe not . . . bringing your homework in or something like that. We really don't have a bad problem with discipline.

Teacher: I'd say in the last, in the last three years for sure, we've seen a lot better discipline. Don't you think? I mean the behavior in the kids . . .

Teacher: Yeah, because when I first came here it seemed like we had a lot of discipline problems.

Teacher: Biting.

Teacher: And I've noticed an improvement.

Teacher: Strife with the kids . . . now I think like the second to last three years about that, it's been much better.

Teacher: They have a better attitude about themselves.

Teacher: And they don't want to be in trouble."

Important to teachers at rural Appalachian Bending Knee is their students' sense of self-worth and efficacy. One interviewee reported that students appeared to have greater aspirations for their lives after school staff had been involved in Quest. As she phrased it, "The children write their self concept, their career aspirations . . . they're all showing positive signs, and kids feel better about themselves. More of them want to go to college."

Bowman Elementary

Increased Focus and Reflection

The focus group interview with four third grade teachers and individual interviews with five members of the Quest team revealed the extent of impact the project has had upon Bowman. One of the most oft-mentioned areas of impact was the school's focus on its goals, noted in five instances by three interviewees. Teachers and the administrator noted that Quest facilitated a schoolwide concentration upon various strategies for achieving collectively agreed upon objectives. One teacher reported, "Well, I think it's given us a focus on what we need to do as a school. I hesitate to use focus because sometimes that . . . you look at that as real narrow and that's not what I mean . . . I guess maybe what I'm trying to say is . . . It's given us a lens to look through for what we're trying to do at our school."

Similarly, another said, "I think . . . the big plus and the big motivation with Quest has been focus. I think it really kind of makes you stop and think here's where we are. We know we want to be better. How are we going to get there?" Even more succinctly put, "I think that . . . it has unified all of us towards a goal of making it a community of learners and of looking at different ways of doing things."

Yet another teacher pointed out that the process of focusing schoolwide on collective goals in turn enhanced the school's sense of professional community. She described the process as "more of a joint effort . . . I think it's more unified. Instead of somebody telling us what we are going to do, I feel more aware of why we're gonna do it. And involved in why . . . I think the greatest difference is that . . . kind of partnership, or more than just a partnership, but that . . . that community building and unifying of all of us working together towards the same thing. I think it's just helped us pull it together in order to know the kinds of things that we need to do."

Quest was often reported to have challenged participants at Bowman to reflect upon their individual and collective practice, goals, and beliefs. Increased reflection was mentioned 12 times. Said one teacher, "I think anything that makes us stop and look at ourselves and kind of take stock of where we are and where we want to be and pushes us in the right direction is a positive thing. And to me that is a lot of what Quest has done. And . . . I think we need not be afraid of that, but kind of welcome the opportunity to do some self-examination." Another phrased it this way: "It makes us stop and assess ourselves—where we are, where we want to be. It makes us choose specific goals for change. And it's not just that we want to be better ten years from now. You have to say, 'I want to be better and disregard ten years from now' . . . It's made us focus on that kind of thing." "It's helped me, and I know it's helped Mr. Vickers, to be always looking for opportunities to stretch ourselves and our children," reported one Bowman staff member.

One respondent noted that being asked to present their school's story of continuous improvement during network events was a mechanism by which reflection and assessment were facilitated. She said, "I think that the reflection . . . of looking in order to present . . . to the network what you have been doing and how it's worked . . . you have to know what you are doing and how it's worked. And you have to really demonstrate . . . [Y]ou can't just say, 'Oh, we tried this and it

worked great.' You know, you have to present: 'Well, this is what happened, this is how we did it, and, you know, the whys, the hows, and everything behind it' . . . to be able to share."

For another teacher, the reflection engendered by Quest concerned her contribution to the school ethos: "I think as far as our school as a community of learners and building that community, it's caused me to ask myself, 'Am I a part of that?'" For two other teachers, Quest enabled them to question their assumptions about the potential of students conventionally thought to be less than able. One respondent said, "I'm sure every school has . . . some population maybe or some . . . group of students that we feel like are not reaching their fullest potential. And it's really easy for us as teacher to say, 'It's because, you know, this . . . They're low income or whatever.' I think that Quest has kind of challenged that . . . I mean, every school has their own population that may be harder to reach and they have all done it. You know, sharing the success stories from other schools makes you say, well, they have done it with these obstacles in their way. You know, there's no reason why we can't do it too." Similarly, another shared, "I, probably, in all honesty, didn't think that special ed kids could necessarily read. You know, now, it's like yes, of course they can and they will and this is what's gonna happen."

The principal reported that Quest offered the opportunity to reflect on current practice, theory, and research, a habit difficult to maintain while administering a school: "It's so hard because when you get into a school you get real involved just to make it run lots of times. In just the inertia, you know, of getting lunch served and getting everything together . . . And you don't really have time to . . . really see what's going on in your field . . . what the current thought is."

Three interviewees noted in seven instances that from Quest they had gained an appreciation for continuous school improvement and self-evaluation. The principal reported that the project offered a vehicle to explore ongoing reform efforts with the school staff: "I've tried to say . . . to [staff] two things. One is, 'If you do what you did, you get what you've got. So, if you're not happy with what you got, what are you gonna turn around and do the same thing that you did?' And that pretty much sums it up for me as far as school improvement goes . . . Another thing . . . that I have said over and over is [that] you don't have to be sick to get better." A teacher shared her perspective that, "No matter how long you teach, there is always something that you can learn. And that's why I enjoy listening to some of the other things at the Quest rally that the teachers had to say, some of the other things they were doing . . . And when I went back [to Bowman], and I thought about it . . . I guess I have been doing some [of those things], but at least that helped me to add on to what I already knew." Another said, "I think that being involved . . . [in] Quest has really channeled my development towards . . . looking for how to make things better and reflecting on my current practices and thinking about, 'Ok, did this work? If it did, let's continue and even fine tune it . . . Plus, quit doing this [if it failed] and go on to something else."

Quest contributed to the development of skills, according to three interviewees, particularly in terms of learning them from other practitioners in the network. "We learn from one another, and it's helped us tremendously with different strategies and reaching our children," reported one focus group participant. Interviewees identified the facilitation of Data in a Day and the Protocol process as the skills they had acquired through Quest.

The Quest Network

Ten comments were made during interviews and the focus group about the benefits of networking with other schools in Quest and positive characteristics of the network itself. As one Bowman staff member put it, "It provided a forum for learning from others and taking in . . . what other people are doing well and how I can change it and make it mine." Another reported that the networking experience broadened her understanding of what change efforts were possible: "Sharing the success stories from other schools makes you say, well, they have done [it] with these obstacles in their way. You know, there's no reason why we can't do it too." The principal put this notion another way: "I think [the network] has helped me to understand that school improvement isn't the same everywhere, that while the goals may be the same . . . every school is going to take a different approach based on what they're doing." Principal Vickers added that his sense that school improvement may be a common theme across quite disparate schools was strengthened during his visit to Bending Knee Elementary in rural West Virginia, during which he offered staff development on the Protocol process. "After having been there and seeing some of the problems [Principal Ellison] is dealing with and those kinds of things, I was even more impressed [with her work]," he explained. For these interviewees, networking provided contact with a variety of schools undertaking school improvement.

Other Bowman interviewees discussed the positive atmosphere of network gatherings. One focus group participant expressed surprise at the networking and collegiality at rallies, saying, "I had never been to a workshop where when the people meet, they're hugging. And it's like a family reunion . . . I didn't expect the networking, the show and tell . . . I learned a lot from that." The network offered a larger community of learners beyond Bowman, according to the principal: "I would feel very comfortable with calling . . . any of the people from the schools that are involved."

Five interviewees made comments about the benefits of networking with Quest schools from states other than their own. "What I really enjoyed when I was at the Quest rally . . . it gave me the opportunity to actually see some of the things that other teachers are doing in other systems and even other states. Because sometimes I think we become so stagnated with being in one place all the time." The principal argued that seeking ideas from schools nearby that are floundering may not be effective: "We've got to look outside of where we are . . . We've got to think, 'Okay, is this where we want to be? We're not there. So, where else do I need to look in order to . . . get help to get where I want to be?' . . . You can't do that by just looking at the people around you and even just looking at people in your state." For these Bowman staff, networking with schools beyond their own state broadened their repertoire of school improvement strategies.

The Protocol Process

During the 1998-99 school year, Bowman fourth-grade teachers used the Protocol process as a vehicle for examining and discussing student writing in an effort to improve the percentage of students achieving at least at the proficient level on the Tennessee writing assessment. Principal Vickers saw the use of Protocol as clearly related to improved writing performance. "I think the increase in the writing assessment is . . . directly attributable to Quest because of the structured reflection that came out of it and the collaboration of teachers," he reported.

Even the four teachers participating in the focus group who had not been involved in the process knew of the impact its use had made upon writing scores. One such teacher reported, "Protocol . . . I know in fourth grade, they were really singing praises about Protocol with . . . last year the writing assessment. We saw a tremendous increase in their writing scores from the year before." By spring 1999, the percent of fourth graders receiving a score of at least competent had risen to 63%.

Other benefits of the process have been varied. "Boys and girls are more responsible for their work and for their behavior. It puts responsibility upon them 'cause we [have] student improvement plans and [it gives] them more responsibility with the plans."

A teacher shared the effect participation in Protocol has upon her: "Protocol has taught me to shut up and listen. You know, I love to talk but there's a time you have to listen. You learn a lot by listening. And we [are] always on the boys and girls to listen . . . Well, I've learned to listen to my colleagues and learn something from them. And so, I just taught myself to be a better listener using the Protocol method." This respondent also revealed that she had used the process in other settings outside of the school. She reported, "And I've also used that in my private life at auxiliary, at clubs and meetings . . . [I]t helped us out a whole lot. We were gathering and [I] mean, we were just talking about everything. You know how women are. We just talk and not get anything accomplished. Meet for an hour and not get anything accomplished. So, I told them let's try something different and we tried that. And it worked out pretty good."

Similarly, another teacher reported that Protocol gave her discussions focus they might otherwise have lacked. "I'd talk and I might just ramble on and on," she shared. "Well, with Protocol you're given a subject and you just talk about it for a while. And I know I can talk. Well, one day I was sitting here and our principal said to me, 'Just talk about the subject.' And I started talking. He told me . . . he said, 'You can stop talking now.'" She then continued that the process had also enabled her to engage with other teachers in the building. After her experience using Protocol, this teacher offered the following advice to other colleagues: "Because even though, you spend a lot of time in the classroom . . . don't just spend that time there. Get out and share some of the things with the people in your school, even your co-workers."

Another benefit of Protocol reported by a Bowman teacher was the practice in speaking about professional matters it afforded. She put it this way: "I think that teachers feel comfortable now with being able to get up and talk and do presentations. We feel that because of Protocol, we're a little more experienced than we were because I like to talk but sometimes we just rattle on and on about things, but . . . with the Protocol, I think we kind of set a goal and kind of stick to that particular subject."

One fourth grade teacher used the process with some of her students after school to discuss their writing. As a student participating in the student focus group explained, "It was a new experience. I ain't never heard of Protocol before . . . [My teacher] asked me to come to her room one afternoon. And I saw a whole bunch of other students there, and I sat down . . . and we were, like, two desks right in front of each other and two desks on the side. And we would write stories,

then read the other person's stories. We would exchange. So, we had to tell them what we liked or [what] we didn't like, what we thought was good, and we thought needed improvement."

Although one student thought providing suggestions for improvement "was hard because they might be your friend," another reported liking "the compliments they would give you . . . most of them I found very, very flattering."

In terms of outcomes from the student Protocol process, three of the six focus group participants believed they had become more adept writers. "I thought I had become a better writer because when I started I was writing a half page and not writing any details . . .[Later] we had to write a story two pages long. I just got such wonderful ideas from the other kids." Another elaborated, "We didn't figure it out at the time, but [our teacher] was . . . helping us prepare for our writing test because they was last year in fourth grade . . . And I got a [TCAP score of] 4 or 5."

Data in a Day

Participants in this case study were asked to describe outcomes from their use of the participatory school evaluation process, Data in a Day (DIAD), learned of by Principal Vickers at a School Change Collaborative (SCC) meeting. One benefit of the process teachers noted was the way in which it invited parents and community members not traditionally involved in school evaluation to participate. Said one teacher, "I really like the Data in a Day last year. It involved so many people. It involved the children here at school. It involved teachers here at school. It involved community people here. And there was such a sharing and such a cooperation that that could [not] help but benefit the total atmosphere of the school." The principal elaborated, "We talked a lot in Quest about involving all the stakeholders and all the segments of the community. And I think that Data in a Day does a really good job of that . . . We included, which they had not in other places we had seen . . . We included a teacher assistant, our cafeteria manager . . . our patrol lady around here . . . We had one or two ministers and those kinds of things." Another reported, "I think some of the parents had a personal interest. They . . . had an opportunity to put . . . their comments up front to [make us] aware of some things they appreciated and some things they kind of questioned also."

Likewise, one teacher became more aware of community perceptions of the school during DIAD, which she began to see as a public relations tool. "I really thought a lot about what the community members were seeing. I'm sure it's the same in . . . all sorts school systems, but it feels like our community a lot of times is being a 'me' kind of, you know. Even with the snow days, there were some words about how . . . teachers are lazy and all this stuff. And [it] really was important to me, to show when people came in from the community to critique our school and look at the things that we're doing, I really wanted to show them the very best." Moreover, her view of the community changed as a result of DIAD; rather than a source of blame, the community became an ally in addressing shared concerns. As she phrased it, "[L]et's, you know, really include them in the solution to our problems rather than blaming them for them."

The principal also reported viewing DIAD as a public relations tool. He shared a story related by a staff member: At a church meeting, a community member spoke negatively about Bowman, to which the minister, who had participated in DIAD, responded, "I really have trouble believing that

. . . I've been to that school. I've talked to those kids over there and I know . . . how affirmed they feel." The principal continued, "I thought, 'Well, that's a benefit of Data in a Day that we don't talk about."

Three teachers and the principal noted the importance of including students in DIAD. One such teacher described a particularly difficult student who appeared to relish participating in the process; "He is part of this very important reflection on our school and that may be the very thing that saves him." She continued, "And I just think that's what's great about being here and being involved in Quest is looking beyond the surface of a child and what they do that drives you crazy. And saying that he is a valuable human being, and it's our job to help him, you know, become a value to society."

Student-led Conferences

Bowman first piloted student-led parent conferences with one class per third, fourth, and fifth grades during the fall of 1998. One teacher who now finds student-led conferences preferable to traditional parent-teacher conferences reported, "[W]hen I first came, I felt a little leery about the student led conferences. And I [worried that] the parents are going to challenge me about these conferences after they finish talking to their children. [Another challenge] was are they [students] actually telling the parents enough about what they have been doing or what they haven't been doing. Have I actually worked with them enough so that they will know what they are supposed to do when they . . . conduct the student led conferences. . . So, what we actually did... we kind of staged . . . mock . . . student led conferences."

At the November 1998 rally, Bowman Quest members reported that the pilot had been successful. The process was then extended to all classrooms, K-5, during the 1999-2000 school year.

Teachers at Bowman, whether Quest participants or not, saw two major benefits of the student-led conferences. First, the process forces students to account for the quality of their work as they prepare to present to their parents at the conferences. One teacher put it this way: "That's really been successful. It's a whole lot different for a child to have to explain to his parents why I did really well . . . You know, a lot of kids don't know why they get the grade they do. But to be able to go through and say, 'I got this grade because I did this, this, and this' . . . It gives them a greater understanding of what they are accomplishing or why they're not accomplishing yet."

Another respondent described student-led conferences as a vehicle for addressing the "Enabling SMART Learners" component of the Quest framework for continuous improvement. She explained, "And in this framework again, the student led conferences come to my mind because the students are responsible for their work. They know what they have done from the nine weeks. They have their papers. They have taken their papers home. They've shown them to their parents. And at that time they take the responsibility. They take the lead role [in] sharing their goals with their parents. See, we have forms [for] them to fill out and . . . on those forms they state why they made those scores, what they did to make low scores or high scores, and then their goals—how they are going to improve them. And to hear those children tell their parents they're going to go home and

study and they want them to help them study, really I think enables SMART learners. You've got your parents involved, your teachers involved, and most of all your students involved."

Three teachers reported that students' enthusiasm and interest in student-led conferences effected parent participation in them. "You know, they're getting them [parents] to come because they want to share their success. And they are proud what they have done," is the way one teacher explained this phenomenon.

The second major benefit noted by interviewees was increased parent attendance. One teacher described the impact student-led conferences had upon parent attendance at conferences that previously would have conformed to the conventional parent-teacher meeting format. "I guess I would say we [had] average parental involvement. But after the student led conferences, I would say about 95% of our parents are involved in their student learning. And that was a[n] initial product of Quest. And this year we tried it schoolwide—K thru 5. And out of my room, I had 95%. Most rooms had 95% or more participation from parents . . . [I]f we had not tried that, getting the students to take control of their work and explaining it to their parents, we would not have had the parental involvement."

Tinder Elementary

Personal Impact of Quest

Participants in individual interviews, a faculty focus group, and the Quest team discussion were asked what impact participation in Quest had engendered on the personal and professional level. Respondents offered 25 replies constituting 11 themes. One reply was coded twice as it contained two distinct themes.

Mentioned five times by parent interviewees was the way in which Quest had enabled them to learn more about educational issues, processes, structures, and jargon. Said one such respondent, "I think my involvement in Quest has enabled me to become a lot more reflective about education. I have had the opportunity to be around educators which has allowed me to understand more closely all of the details involved in carrying out the day to day activities that are involved in teaching children. Uh, definitely the exposure to the literature in the educational field has been a very positive aspect of Quest for me." Another commented, "Going to Quest and listening to these people and looking at the different research has given me what I feel at least are the beginnings of foundation of understanding to help people learn and of the educational process." Such insight into the workings of the educational process is important because, as one interviewee put it, "It has helped me understand them and how they operate, and it's helped me to see their relationship with my child. It has also helped me see their relationship with each other and Dr. Baldwin and how that whole process works. I mean that's, that's a real mystery to parents, you know, how things get done in school."

Similarly, in two instances team members reported that the proximity to teachers afforded by inclusive Quest teams had enabled them to establish new relationships and gain insight into teachers' work lives. As one indicated, "I think probably what Quest has allowed me to do is to get

into the mind set of the educator a little bit, not a lot, but a little bit, and to understand that they're people too. They have lives, they have things that they have to do, and you know, the needs that they have as far as their students are concerned. You know, so many . . . when I was a kid you'd look at your teacher and think, 'They don't have a life . . . They stay at school,'"

Focusing on how to share leadership in the school was noted in four instances. The principal, for example, reported that this issue had been of particular concern to her during Tinder's tenure in Quest. She shared, "How do you really share leadership? Delegation of authority seems like a very easy kind of thing or delegation of responsibility. But it's more than that. It's being able, and this is . . . a tough thing to do I've found . . . to step out of the role you're in to become a member, a colleague and become a member of a problem solving group and say, 'This is where we need to go. Now let's talk about.' I mean, 'We've agreed this is where we need to go. Now let's talk about what it's going to take to get us there for the children. And characteristically administrators are not viewed as people that do that . . . Administrators are viewed as people that tell you what to do, and you either like or you don't like it but, but you don't have a whole lot of voice in it . . . I personally have to remember that there are good ideas out there that aren't mine, because for years administrators were expected to come up with the best ideas and the good way of doing it and that's what leadership was, and that's not what leadership is. Leadership I have discovered is trying to get everybody headed north at the same time."

Dr. Baldwin elaborated on the ways Quest had changed her approach to leadership. She reported, "I have learned to step back and to listen to the faculty rather than press my ideas and to not . . .be put on the offensive or the defensive when there is disagreement. And I have learned that that's an okay thing. Yeah, I think I've always felt before that everybody always had to agree and always had to be in step with everything in order to have a good working faculty, and I found out . . . that's not the case. And, and that it's not my mission any longer to try to convince everybody to think alike. As a matter of fact it's much healthier and more productive to have people thinking differently because then what you get is this wonderful divergence of ideas and when you can finally marshal all of that and bring it together, then the solutions that you arrive at are really rich and unique."

Participants mentioned three times that they had become more reflective as a result of their involvement in Quest. For one Quest team member, this meant,"It's that kind of thing, when, if we're going to add that [program] what do we take away, and that's part of what this whole business is that I ponder about. I mean you don't go into things blindly any more. I don't simply accept them at fact value . . . I try to spend time thinking about the ramifications and what it's going to mean." Another reported a sense of responsibility to think about and share information received at Quest events, although she also felt ambivalent about the depth of her efforts: "But that kind of thing has been very challenging . . . I almost feel . . . just this weight of I need to share this. And so Quest has made me very reflective and very responsible, although I haven't, you know, necessarily felt that I've been affected enough in sharing the parent perspective."

Indicated twice was the way in which Quest had offered validation for participants' perspectives on education and change. Such validation then led participants to feel more confident about their views and philosophical commitments. According to one team member, "One of the things that Quest has done for me is to validate my perceptions about school leadership and my

philosophy about how schools should operate and, and what their focus should . . . For a long time I have felt as though I march to a different drummer . . . in this school district for a long time . . . And so to have other people from other places saying, 'You're right, and this is, this is what ought to be done,' has been very, very reinforcing and reassuring." In addition, "I'm a whole lot more in perspective about those things than I used to be and I think, I think part of it comes from the assurance that that's an okay place to be. I think I shared in one of the rallies, education is the process of going from cocksure ignorance to thoughtful uncertainty, and I'm somewhere on the continuum. I hope [I'm] moving toward the thoughtful uncertainty, but I think I probably came in at the cocksure ignorance one, thinking I knew this is how you do things. Uh, so I think, I think Quest has done that for me."

Mentioned in two instances was the usefulness of Quest presentations on the implications of brain-based research for teaching and learning. Three other comments praised aspects of Quest, including the professionalism of project staff and the opportunities that Quest events provided for reflection on practice. One such respondent reported appreciating "the latest research that they [project staff] could give us in just that little bite sized pieces along the way and then you think about it and you hear it again at the next rally and that really does, it helps me a lot."

The five remaining comments were unique. One team member reported feeling more able and entitled to participate in the educational process at Tinder: "I think that what Quest has done for me it has empowered me to become an active participant in the education as it relates to school, and I think that's had, that's been a very positive impact of Quest." Another suggested that Quest had assisted her in becoming more flexible, noting, "I think it's made me more flexible . . . I think a result of that is due to AEL and Quest, that, that I'm more apt to be flexible . . . I'll be flexible and try this or anything that's going to help . . . my students." A parent participant indicated that involvement in the project enabled her to communicate more effectively with clients: "I think the information that I've gotten from Quest has allowed me to communicate to the students I have (because I teach on a part time basis),[it] has allowed me to communicate with them probably more on a one-on-one basis. And I've used some of things that I've learned in Quest, some things on brain-based learning . . . and that has really helped me. And I think too, uh, when I produce a television program for the education department, I understand a lot better what's going on there and some of the language they use and the ideas and where they're coming from."

Finally, one team member reported designing personal professional development around an area discussed at Quest events: "I have professional development I'm working on this summer. One of my professional development days will have to do with technology and trying to enhance my teaching and the students learning through the, you know, the Internet. I have used the Internet for research this year as a result of what I learned, was learning and watching being done at Quest."

In addition, two respondents discussed the personal impact implementation of student-led conferences had made. A parent noted that listening to her child's presentation had "allowed me to understand what my [child] goes through on a day-to-day basis . . . You know, we've gone through parent conferences, you know, for the last four years, and you get a lot of information out of those from the teacher. But you don't really hear much from the child. And with the student-led conferences done by Mr. Cook my [child] has had to speak up for himself for the first time in five years."

Another Quest team member described how student-led conferences had been a source of professional development: "The student-led conferences have just been really awesome. I did, I had a graduate class at [a local university], and for my master's . . . I did my whole research in that class based upon those and so it was great to have, have a lot of background information so that when I implemented in my classroom, I felt I was preparing my students better than I could have otherwise."

Two respondents also noted ways in which Tinder's focus on enabling SMART learners had affected them individually. For one interviewee, this focus led her to better understand one of her students. She reported, "I think it also forces teachers to look at the SMART ways and that each child has that might be different. I'm thinking about one of my little boys that, you know, is not able to do paper pencil activities and . . . I know in the past you know that that was your only measure. You would just have chalked this kid up, and yet when you give him the same thing orally you know that he has learned and he has obtained that information and that he is a very SMART learner. But he just learns in a different way."

One teacher discussed having personally designed a weekly reflection for students about the meaning of SMART learning. It was recounted as follows: "We have really put that into practice. The weekly reflection that I have shown with . . . I think often in education, I, we, give students things and expect them to understand. But I, we, really had to break apart SMART. And still I have fifth graders at this school —I think you know I have a lot of really above average intelligence—and so I had, we had to really, really break down those parts and understand what successful meant and motivated and so forth, but that, that was important."

Impact of Quest on the School

General Impact of Quest. Tinder staff reported the impact Quest had made upon the whole school. Fourteen such comments were made, falling into one of seven categories of themes. Mentioned five times was the helpfulness to faculty of information and research presented by Quest staff. "[Quest staff] have time to read them and tell us the important things. And then if we want to know more, we can go read the book," said one respondent. Another reported, "I think for, at least as far as the teachers are concerned, they're bombarded daily with new information. You know, there's always a new magazine, there's an article . . . I think that what Quest has done is take that bombardment and taken that information and put it in . . . useable areas, or in useable language, or in groupings or, you know, the things that are useful on a day-to-day basis . . . It really has allowed them to take the information that they wouldn't, couldn't, normally get to see, read . . . Well, what Quest has done is not only have you given us the news bulletins, but you've given us, you know, the information that goes with it. And you can pick and choose what you, what you want and what will work within the framework you already have."

Two respondents cited a list of needs assessment and self-analysis techniques of which they had learned from Quest and used at Tinder. Two others cited the Data on Display strategy as having been a useful way to work collaboratively. One described how this technique was used at Tinder: "The one thing that stands out in my mind is the dot system that, I don't know what you all call it, but, like, if there's something that has to be decided, instead of us all just raising our hand and saying what we think and then have to decide what all of us thought, we had the questions and or the list

or whatever on the papers. We go in and put a dot on the ones we think is most important, and the ones that has the most dots is obviously . . . a picture in our mind of what we think is the most important in our school. And I think that's the one thing that our faculty has used several times to solve a problem on what's the most important thing in teaching math or which is more important math or science or what do we need for . . . our consolidation plan or for choosing PD for our school."

Efforts to include parents more meaningfully in the life of the school resulted in increased parent involvement, according to two interviewees. One such respondent observed that alterations to the parking lot made her feel more welcome at Tinder. She said, "As I pulled into the parking lot just this afternoon I saw that . . . one of the changes that we've had in the school as a result—and I know it's a result of Quest because it happened right after one of our Quest rallies—is the parking spaces, parent parking spaces, were put closer to the door. Before it was the principal and the secretary and the administrative staff, and then the teachers and the parents could park at the end of the parking lot, which I didn't necessarily view as negative. And it wasn't until today that when I pulled up and parked right here next to the door I realized, wow, this is something that has been done to make us feel that we're important and that we're special . . . today I thought these are little things that are done in order to build our trust, to be able to build that community, that relationship."

The remaining three replies were unique. One respondent reported that Quest had encouraged team members to engage in reflection as a group, elaborating, "I think that is one of the big impacts that Quest has had. It's made us stop and think. And it's made us stop and think as a group, as Quest members and as individuals, you know, 'What is my impact on the school? What can I do? What am I capable of?'"

Another interviewee suggested that Quest had reinforced the significance of professional development, which had enhanced Tinder staff's professional lives. As she put this, "I think in a broad sense it's helped me to understand the importance of professional growth, not just for myself, but for the faculty, and that the ideas and the things that we do here don't have to come from, from the principal. They need to come from other places and other people. And having a team involved in Quest and what we've learned uh, has had an impact. And I have, you know, my teachers and the parents that have been involved in Quest are different people as a result, and I think Quest has given them the courage and the knowledge to do things differently than their colleagues."

One respondent described the ways in which information provided at Quest events about the applications of findings from brain-based research has been incorporated into the school. "I know certain teachers are more conscious of these students, making sure that they're hydrated and that they have protein, you know. We always make sure they have healthy snacks and things like that . . . what we've learned in brain based research."

Impact of the SMART Learner Theme. Interviewees also offered 26 comments constituting seven categories of themes about the use of the SMART learner theme throughout the school. Eighteen comments simply named or described the various ways SMART had been woven into the school culture. Three respondents each reported that the SMART theme had been displayed in myriad ways on bulletin boards throughout the school, a parent wrote a monthly column in the school newsletter based on the theme, and several workshops had been conducted by parents for parents on ways they

could incorporate insights from the theme into their parenting. Mentioned twice each were the inclusion of SMART as a theme throughout the yearbook, the renaming of the theme to become more inclusive ("We are Totally SMART!"), the SMART creed recited daily, and SMART stationary. One respondent also reported that Totally SMART t-shirts had been created and distributed at the school.

However, according to two interviewees, the adoption of the theme took some time. As one phrased it, "I think that, that probably the children at first did not understand, and it's difficult for the parents to understand what SMART is. And it's taken a while for that to really take hold for the kids to understand the individual parts of SMART and, and to understand what that means as a whole." In addition, one other respondent reported that the SMART learner creed recited daily was often read too quickly over the intercom, not providing students enough time to reflect on its meaning.

Three comments, on the other hand, suggested that the concept now permeates the school. According to one interviewee, "From listening to Nadia this morning when she was mentioning how her child, you know, when he was sharing something with her in the grocery store and then he says, 'Well, I'm being thoughtful, aren't I?' You know, I think that it permeates . . . or trickles down, whatever you want to call it, you know, from the teacher to the student, you know, to the parent . . . I think that the parents and the teachers and the students will be more on the same, same wave length and be able to understand more what being SMART is . . . I think that it will just become a part of us—I mean, it has to an extent already in one year's time—but I think four years down the road it will just be, we won't remember what it was like without it, maybe."

Another respondent explained, "I think . . . that's a common theme, that cuts across all levels of instruction, kindergarten to sixth grade, across all adults regardless of their role or mission in the school, and that if you ask someone about the school, 'What's it all about?' the children might say 'SMART learners,' or they might say, 'Totally SMART.' It gives an identity, if you will, and I think it also, it also gives a framework for doing things in the classroom . . . we're doing this because we're responsible, we're doing this because we're autonomous, we're doing this because we're motivated. It gives us, it gives us a framework for looking at each of those things too . . . what is motivation all about? I mean that's, that's a study in and of itself."

Two respondents discussed ways they helped students consider the meaning of the acronym. One reported that classes set aside time to discuss what each word in SMART meant. Another described a weekly reflection sheet a teacher had developed for students. Items asked students to write about ways in which they had been successful, motivated, autonomous, responsible, and thoughtful during the week.

The remaining two replies were idiosyncratic. One respondent noted that the principal often used the acronym during interactions with students. And one reported conducting graduate research at Tinder to explore whether a decline in assignment alerts would result from the schoolwide focus on SMART. However, at the time of the interview, data were not yet available for her to assess this.

Impact of Student-Led Conferences. Sixteen comments fell into six categories about the ways student-led conferences had affected Tinder. Respondents made four general positive observations about student-led conferences. For instance, one such interviewee reported, "Going to these Quest

rallies has really been a good avenue for me to learn new things, because without some of those I don't know, you know, I probably would still be having the parent teacher conferences that I never did like any way." Another shared that student-led conferences had been a revelation to her: "And the student-led conferences has been a tremendous thing that has come out of Quest. I had never even heard of such a thing until Quest."

Four comments suggested that the adoption of the SMART learner component of the Quest framework had inspired Tinder's use of student-led conferences. Said an interviewee, "And with the SMART, I think student lead conferences come directly out of that, especially in being autonomous for everything they do, because they're in charge of the conference, and being responsible." Another respondent, apparently not directly involved in conducting student-led conferences, noted that they appeared to reinforce the 'T' in SMART: "I think the T is [part of it] too. I think one of the things you all were doing with the student-led conferences that was so valuable is that whole business of reflection."

Two Tinder staff reported that those teachers piloting student-led conferences would use their experiences to train other teachers in the building. Similarly, three interviewees shared the ways in which the innovation had been adapted to better meet their needs. One, for example, described a colleague's use of both student-led and traditional parent teacher conferences. She said, "I mean, she's talked about next year maybe not doing the student-led conferences the first quarter, [she'll just] go ahead and do the parent teacher conferences because there is such a difference between primary and intermediate that the parents needed some feedback maybe from the teacher. And then she had talked about doing the parent one, the parent teacher first quarter and then doing the student-led second/third quarter." Another described her revisions of the process: "Well, the first time that we had them I think that some of the parents were a little nervous and the kids were nervous . . . We'd prepared the portfolios, and we did the reflecting, reflect and justify on the pieces that they chose and then graphed their grades so they could see . . . That was an excellent visual. And they were able to set goals and I had, and after each set of conferences I would revise, I would go back and reflect and see how you know these things worked . . . perhaps revise their goal setting sheets and try to make it, try to facilitate it a little bit more, and help them to focus and instead of just saying, 'What goals are you going to work on?' 'Well, what goals are you going to work on, and how are you going to do, what are you going to do in order to achieve those goals?'"

Parent attendance at conferences had improved, according to two Tinder staff members. One shared her sense of this: "I'm not aware of any parents that didn't come. And when we have this, the teacher conferences, we maybe will have four or five that don't show up from the whole classroom but I'm thinking that they had a really high attendance rate."

Preparing students for leading conferences with their parents was a learning opportunity in and of itself, indicated one respondent, reporting a colleague's experience: "I think that one of the teachers in the primary had said that she was, she was more aware of the terminology that she used because she wanted her students to be able to convey that to her parents. And you know, how could they if she didn't use the word proofread and edit and those kind of things that they probably wouldn't with their parent either? So she said, 'It just really forced me to make sure that they were going to have the information they needed to present that to their parents in a meaningful way.'"

Impact of Math Action Research. During the 1999-2000 school year, Tinder staff noticed a decline in students' math computation scores on the spring administration of the CAT-5, the state-mandated standardized achievement test. Puzzled by the decrease in scores and the simultaneous gains made with regard to math concepts, several staff began to investigate. As reported in the faculty focus group, they administrated questionnaires to students and teachers in an effort to isolate the factors effecting the scores (see Appendix for the full transcript of teachers' account of this venture). However, the data from these identified too many variables for teachers to address, so staff requested assistance from Quest staff.

Quest staff in turn referred the concerned teachers to staff at the Region IV Comprehensive Center located at AEL, who led Tinder in an action research project focusing on math computation. Comprehensive Center staff interviewed a sample of Tinder teachers about their math instruction, examined the student data, and analyzed the questionnaires completed by school faculty. In addition, Tinder staff participated in a half-day professional development session on various instructional techniques that could be used to enhance students' computational skills.

Teachers' analyses of test data also revealed several specific areas of concern, including computation with fractions, decimals, and place value. As a result, teachers now often begin their lessons with a review of these areas, engaging students in solving computation problems.

Teachers also discovered that the issues with declining computation scores were not endemic to particular teachers or classes. Rather, it appeared to be a schoolwide challenge.

At the time of the case study site visit, however, test data were not yet available for teachers to assess the results of their efforts. Nonetheless, they reported seeing some changes in students' performance. Said one teacher, for example, "Now myself, since that [professional development] meeting, everyday I start my math class . . . review problems on the board . . . and I do see it, they're getting better at them. When we first [started], some of them were only getting two right. And now most of the class are getting all five right. And I vary what I ask. I ask geometry questions, and each of the five are different. I don't, like, have five addition . . . subtraction, and multiplication."

Student Outcomes

Outcomes of Student-Led Conferences. Interestingly, interviewees made relatively few comments about student outcomes that they could attribute to participation in Quest. Respondents made nine comments, falling into four categories, about student outcomes of involvement in student-led conferences. Three brief comments indicated that students simply enjoyed the chance to present their work. Students felt more ownership for their school work as a result of leading conferences with their parents, reported two interviewees. For instance, one Quest team member suggested, "It makes sense. If the child is saying, 'You know, I really need to work on this,' as opposed to the teacher saying to the parent that your child really needs to work on this . . . It makes sense that they would be more [involved]."

Two team members indicated that students engaged in more reflection about their work due to their participation in student-led conferences. Asked about student outcomes from the conferences, one individual replied, "I don't know, unless it's more of an ability to reflect on what

we've done. Because I know they did quite a bit of reflection work, so that's something that probably we don't slow down and take time to do often, and I don't know that they do [it] often. But maybe just right after that conference they can reflect on their work from the quarter."

Two respondents commented that students now developed improvement plans for themselves, one of whom additionally reported that students were more responsible for their work as a result of the student-led conferences: "They keep up with their work better, you know. I have them keep their things in a 3-ring binder . . . I think that they're more responsible to keep up with their work and it's given them an area to organize their things. I've been very pleased with it. I think that, I've been, it's helped me, which has enabled them to be better goal setters, because usually, you know, you set goals at the beginning of the year and well, you don't look at them, you know, until the end of the year. You don't go back and look at them like you should, and I've been guilty of that. And this has, you know, we've reviewed them frequently and they have a copy in their folder of their, of their goals and check it . . . I've been very excited about that."

SMART Learner Outcomes. Interviewees discussed student outcomes from the school's adoption of the SMART learner theme, making five comments falling into four categories of themes. Two respondents reported that students appeared more responsible. One, for instance, said, "I think that probably students are not as afraid to take responsibility for things they've done, both good and bad."

Another respondent indicated that students seemed increasingly thoughtful as a result of Tinder's focus on the SMART learner component of the Quest framework. She reported, "I think that they are probably a little more thoughtful in the things that they say and what they do. Uh, I think in some ways they probably maybe look at the entire education process or their entire class a little differently than they did before, you know. How do these things impact other people? Most kids are really self-centered, and it's really difficult to get them to look outside themselves. And I think in some ways this has gotten them to look outside themselves at other people in the class. And at least I can see some of that going on in my son's class."

One respondent each reported that students were more confident in their ability to learn new material and used the words contained in the SMART acronym.

Benefits of Network Participation

Interviewees reported a variety of benefits derived from the Quest network of schools, making 24 comments falling into 11 categories of themes. Mentioned six times was the way in which the network facilitated the exchange of ideas, coupled with the inspiration to implement the most useful of these. For instance, one such respondent said, "Mansfield and some of the other schools that we've talked to give us a direction; they give us ideas; they give us feedback. I mean we look at some of the smaller schools that have fewer resources and have different population[s] than we have, and I mean, they're a world apart from where we are, and yet they achieve so much and they do indeed have a sense of community inside their school. I mean we envy, you know, some of the things they've been able to achieve." Reported another, "And I think that the ideas that those schools have brought into Tinder and just the examples that they have shown us, you know, what is possible, has really given us kind of a foundation, if not something to head toward, a real goal that we can do. If somebody else can do this, so can we."

Similarly, five interviewees noted that the network enabled participants to share ideas and resources. One such respondent reported, "I've talked to . . . Nathan, and I've talked to Helen and Mrs. Vincent, and getting to know them as individuals always helps, and you're not afraid to offer suggestions or offer to help. If I know someone on a personal basis, you know, I'm willing to say, 'Hey, anything I can do please let me know.' I'm willing to put myself out there." For another participant, the various means of communication were helpful. She said, "The e-mail business is wonderful and the listserv too. I mean, I don't always respond when those things come out, but I know that there are people out there thinking and sharing ideas and using it as a sounding board, and that's a good thing too. And sometimes I, I share some thoughts but sometimes I, I just read what's out there too. But I've taken lists of things off there and, and used some of that information, followed up on it, went to a website that was, that was listed as a good resource, or looked at grant possibilities because they've been listed, those kinds of things. And then of course . . . from the network is resources that people are using in their schools that we hadn't heard of that we know, we have, have books that we purchased as a result, or CD's."

Two respondents reported that a benefit of the network had been the provision of information about a variety of school improvement strategies. Schools could then choose from them the most appropriate strategy to meet their specific needs. As one interviewee put it, "It's certainly given us a lot of things to think about. And some things that are working for other schools are not necessarily going to work for us, and that's good. I mean, we can, we can pick and choose from the things we've learned from the network of schools."

Another two respondents reported that the network allowed them to see their schools from new perspectives. For instance, one Quest team member shared, "I think that . . . the network . . . provided some recognition of the things that we're doing at this school that to us seem common place and other people find to be very extraordinary. I mean, I think, that was very supportive. It's, you know, [as if network participants are saying], 'Don't give up what you're doing. That's a special kind of thing you're doing." You know, I hadn't thought about it that way. So it's given us, it's given us that."

Two interviewees expressed their admiration for other network participants. As one phrased this sentiment, "I have such admiration, not only friendship, but admiration, for the people that I have met in the network. The Saint Margaret people impressed me so. They've got their own set of constraints, you know, and the things that they're doing within their mission is really impressive. So there hasn't been anyone that I haven't learned from in the network."

A visit from another network school was mentioned in two instances. Reported one faculty member, "[A fourth grade teacher from Bowman] came and spent some time with me and we shared some things and I shared with her the things that I was doing you know as far as the reflecting and she took copies of different things and my parent letter that I do each Friday and the scoring rubric and you know just everything that's involved and what I give the children for that to help them with their reflecting and communicating with parents and we just, we shared some things."

The remaining comments were idiosyncratic. One respondent expressed appreciation for the opportunity to interact with students participating in the Quest high school network. Another reported that the network helped support the reflection necessary for continuous improvement.

Relationships within her Quest team had been strengthened as a result of participation in the network, noted a team member.

One respondent reported that although Quest staff used a variety of "buzz words . . . I just had to get through the language to get to the meat of the process." Later she added that she was pleased to be included in Quest as a parent; nonetheless, she felt that the project was intended as a "professional type of networking organization."

Three additional comments were made by interviewees about the value of networking with schools from states other than Kentucky. Two reported that meeting participants from other states allowed them to look beyond their own particular education contexts. As one put it, "I think that in Kentucky we have a mind set — and sometimes it's good and sometimes it's not good — we think we're on the top of the heap as far as education reform. And in some ways we probably are, and in other ways we're really behind, and they don't recognize the fact because they're, they're constantly looking at themselves and comparing themselves to other schools in the area or other schools in the state. Well, they're all working with the same materials. When you look at, you know, at a school that's in Georgia, or one that's in Tennessee, or one that's in West Virginia, they have a whole other set of rules they have to live by, and you know, resources that they can use, and you can look at that and draw inspiration from it."

Differently, another respondent felt that networking across states revealed the similarities between schools. "The value [of networking with schools outside of Kentucky] is that we're all in the business of helping children learn, and we can all learn from one another because none of us has the corner on all the right ideas. And although situations may differ, we can still learn from one another."

Xavier Senior High School

Personal Impact

In seven of the nine individual interviews conducted, Xavier interviewees described the personal impact Quest made upon them. Ten comments concerned the learning that had taken place through the experience of participation in the project. Of these, two were generic. For example, one parent reported learning new ideas for school improvement: "[I learned of] some great ideas and the implementation of those ideas for, you know, to bring back here, and we were able to really do some good, I think."

Three comments about learning from Quest concerned gaining a view of the "big picture," as one respondent put it. A teacher said, "I think it has helped me to see how other schools go about school renewal. Sometimes we get locked in our own little shell. It's got me thinking about school renewal. How can I make our school better? Classroom teachers tend to get bogged down into the daily routine of the myriad of things we have to do, and sometimes it is difficult to stand back and look at the big picture. I think Quest has helped me personally to do that." Another reported, "It's really given me a lot of ideas to use personally in the classroom . . . new ways of thinking of things and new ways of looking at certain things and seeing that our problems are really universal more so than just specific to our school."

The administrator made three comments suggesting that she had learned of tools for implementing and managing change through Quest. As she said, "It's really given me some tools to look at school experience in school effectiveness . . . from a different perspective. The model has always been to look at the school from the outside and through data about students, through discipline, through attendance." She continued, "I think what Quest . . . has given us [is] an ability to look at school from the inside out." Using such tools, however, involved a certain amount of risk. She explained,

> "Uh, some of the things, some of the actions that I've taken as an administrator have come out of the techniques and the, using the tools that we, you know, learned about in Quest and in the school change collaborative and that has, that can have some political fall out for you personally in that you're pressing up against the status quo and, and in involving teachers in decision making or involving teachers in the valuation, then they begin to take ownership of the process and of the issues and want to move forward with change and that is often very difficult for those who are outside of the school to understand in that sometimes they see that as, you know, the natives are restless and not going along with you know what, not going along with, uh, the initiatives of the district when really what you're doing is, you've really gotten by it now and the teachers have ownership and they want real input and that can be, that can be dangerous for an administrator. So learning how to manage that in a positive way, I've had to question how I continue to use these tools in a way that has a positive impact on the school and on the teachers and also on my relationship with the people who are outside this school."

Two comments regarding learning from Quest concerned, both from students, acquiring leadership skills. As one said, "I think it shows you how to be a leader and to actually speak up for yourself, because I know when I was there [at a Quest rally] I was in charge of our whole school. Like, I was the speaker for our school, and it actually shows you how to get involved . . . and actually, like, talk to people that you're not used to talking to or giving speeches, and I thought that was awesome."

Seven comments indicated that they had made new relationships with members of their school community or with members of the Quest network. Said one teacher, "I really enjoy being with the kids and seeing somebody like Steven and Bella who've been there the whole time and watching them grow up. I mean, I think that was just wonderful." Another reported, "I think it has improved my relationship with other teachers and students here in school. I've got to know a lot of students that have gone onto the Quest team. This is such a large [school], 3000 students here, and some of these students I never knew until we went to Quest . . . Now I am involved in some of their programs. They come to me saying, 'Would you like to do this? Would you like to do that?' It has helped me branch out into the school." According to a student, meeting others from disparate schools had been a personal outcome from Quest participation: "It's been an opportunity to meet people from different, like, regions of the state, I guess. There's something different than . . . knowing about a school of 3000 and going and meeting kids that go to schools [that], like, are 1000 or so."

According to two interviewees, the experience of hearing student voice had made an impression on the personal and professional levels. "The big one was to listen to the student focus groups. We had a student focus group here at school with our parent advisory council. We had about

30 students and they were answering questions from the student surveys that the county cooked up. And I changed, after listening to that, and I was very pleased that I was able to listen . . . I changed about ten things the next day and they're all little things but they were . . . about how students feel comfortable in class, what teachers do to encourage students to learn, to pay attention."

Three comments suggested that Quest had been an affirming experience. One interviewee reported feeling energized to undertake school improvement following project gatherings. Another felt her approach to administration had been affirmed through Quest. As she put it,

> "I think sometimes there is this model of an, of the tough administrator and you know having to have a safe and secure environment, to have good discipline and order in this school, takes strength but I think it's more about building relationships and that always has been my, that was always my approach as a teacher and it was always effective but sometimes that can be seen as being too soft and I think if anything what the experience with Quest and with, with the school change collaborative has done for me is to say wait a minute you're on the right track and this is what it does take in order to have an effective school, is that building of relationships."

A third comment suggested that the respondent felt more hopeful about continuous improvement following Quest: "I think that by the end, uh, you saw . . . that there really were ways to deal with these problems which at the first rally almost seemed insurmountable . . . What really surprised me the most was that there was really actually a lot of things you can do and that schools can do to make learning happen."

The remaining six comments were idiosyncratic. One interviewee reported feeling a greater sense of engagement: "I think it has helped keep me involved in schools, in general . . . I think Quest has helped me stay focused and stay in tune to what the community needs in the way of product–a graduating student from our school." Another indicated that Quest had "given us a vocabulary in which to discuss some of the concerns that too often times . . . are characterized as moral issues when in reality they're learning issues." This Xavier participant also described having become "a lot more politically savvy in the use of these tools [learned through Quest]." However, she also noted that such growth was painful, saying, "One of the lessons is that change doesn't come without pain and that at some point, not only as an individual, but as a school community, you have to decide what price you're willing to pay to create the change and to maintain the change effort."

One interviewee appreciated learning about a resource developed by Quest staff focusing on the SMART concept. Another described the content of some of the rallies with more ambivalence, noting that Xavier Quest team members discussed the school's block schedule repetitively.

School Impact

General Impact of Quest at Xavier. Five of the nine individual interviewees noted some general influence Quest had made upon Xavier. Six comments suggested that Quest had facilitated discussion between staff, administrators, and students about school goals and priorities. "I think giving out surveys because I know that was a big thing," reported a respondent. Said one student, "At Quest we were talking about how we could improve, like, four by four and how we can improve

our school spirit and we're giving out surveys now that say like, 'Xavier, what are the weaknesses of Xavier?' And then you write them down and, like, every single student in our school gets one, so they evaluate our school, like, on their independent, like, studies, how they see it, and I think that's, like, a big improvement." A teacher reported that as a result of such communication, school administrators took student and staff concerns more seriously: "I think the number one thing . . . is that I think that it's opened the administrations' eyes to the fact that some of the complaints that they were hearing were just not made [up], that they were really problems that actually needed to be dealt with. And I think that once they actually saw that, and I think that was a result of Data in a Day but to a large extent less so the first co-venture. And I think that's been very very positive because once they saw it was real, you know, they started looking at ways to improve what were problems and they were seen as such by the administration."

In addition, four of the six comments about enhanced discussion between school community members also addressed the ways in which student voice had been incorporated. As one student phrased it, "I think it makes the other students know that we actually have somewhat of a say. Because they know that, they'll know when someone's missing from class and they'll go, 'Where were you?' and I was like, 'Oh, I went to class and we got to say this and this about this,' and they're like, 'Oh wow.' And then you know . . . it gets reported back to the student body so now more of them know and then we can see, because we'll say, 'Well, we hear what's been said, what needs to be changed,' and then we can actually see if it's been changed or not and I'd say it has helped for the most part, like we've seen some changes." Likewise, a teacher reported that student involvement in school matters had improved: "Student involvement was definitely improved, and I think that's a definite outbreak [sic] of Quest–you know, involvement in student government and having students involved in the Quest program has sort of helped spread it through the student body, even they don't exactly know what Quest is, they've some things, they've done an outgrowth with Quest."

Efforts to improve the school atmosphere and culture were reported in four comments. Said a student, "I think it's kind of more friendly." A parent involved in Quest described her efforts with the parent organization to install clearly marked signs around the school to provide students and visitors adequate information about the school's layout. She shared, "I know we tried to make the building itself [better] . . . one of the great ideas we came up with was the directional signs in the school. You know, this came out [of] our Quest conference . . . Looking at the building, just the environment, which was one of the first issues that we had discussed and where were we lacking after so many years and finding out how people went crazy over little signs that the PSO [Parent Student Organization] purchased and then [the principal] got on board and helped us do the financing. And so there was real cooperation between the administration, between, you know, teachers, everyone with, with great ideas."

This parent also reported that meeting with Xavier teachers during Quest events provided her a view of their experiences, which in turn led her to propose PSO activities intended to express appreciation for teachers. She describes the efforts in this way:

> "And that's, that's really from Quest we learned it just listening to the teachers, at least I did. You know, like, 'Well, you know, we [teachers] only get complaints.' And we thought, 'Well, let's see if we can change that, you know. Let's just try to do goofy things to say, you know' . . . The organization here, we charge $5.00–that's the whole year, for a family, and

> we try to, you know, like I say we did the projects with the signs, the directional signs and we try to give scholarship money every year and, so there's a lot of things that we, we try to do. But we try to find out, you know, what do they really want or how can we help in just a little way and just hearing from the teachers themselves . . . I know at the beginning of the year we give them a little deal with a first aid kit. It's got like an aspirin, a Tums, a rubber band so you can snap yourself a few times, you know they're junky little things in a little bag and sometimes we put a little poem around with them. And it's funny when you find out [teachers say,] 'Well, I didn't [get] one, though. Do you have extra one? Well, I didn't get that book mark.' Crazy little things, and they act like little kids."

One comment was unique and could not be coded. A teacher suggested that Xavier had improved overall due to Quest, reporting, "I would like to say that I feel like the school . . . is a lot better, and I honestly believe that Quest is the factor in that."

Faculty focus group participants, however, presented a different account of the extent to which Quest had influenced the school. Ten comments made during the focus group interview suggested that Quest had saturated Xavier very little, if at all. Several of these included : "I don't see any impact or guidance at all and that's not to say that it isn't there but I don't know about it;" "I have to say there are probably results that I noticed that I don't know coming as a result of Quest and that's my ignorance but I just don't know it;" "You know, we see a little impact but that's it and I don't know any other and we don't have a person on the Quest team in the English department;" and, "The art department, I, you know, I'm not necessarily saying it's a negative thing but I think we have remained thus far on the outside of a lot of this stuff. But to be frank, I couldn't tell you what Quest is." These reports suggest that some faculty were unaware of Quest and Quest efforts, either because they had not been included in such activities or did not know others who had. One interviewee put it this way: "To be really candid, the problem is, and I think from this discussion today has become very obvious, this is a communication problem."

On the other hand, four comments made during the focus group indicated that other faculty were somewhat more aware of the project. Said one such respondent, "The people who have been involved are excited about it so it has been just another element of something to help here in the school." Another noted that the Protocol process had been used by English teachers to ready their students for a district mandated research paper, which students were required to pass to graduate. One teacher reported that students and another teacher in particular had found their participation in Quest useful, saying, "I think Terry Preston really takes what you do at Quest at heart and I think she does try to come back and she does try to work with [several school organizations] . . . But I think the students feel, uh, affirmed. They feel affirmation through Quest, and they feel that I think Terry gives them the, the feeling that they have power to change their school."

Impact of Data in a Day at Xavier. Twelve comments made during the interviews and the focus group concerned the Data in a Day process. Four Xavier interviewees reported that the technique had been inclusive of many perspectives and stakeholders, a challenging and risky undertaking in such a large school. As an administrator explained, "We do a lot with our school newsletter in terms of informing our community about our involvement with Quest and the fact that we're the only high school in northern Virginia that participates, so it's given, it's added, like, a little glitter to our school resume to be involved in this kind of a process with the department of education and parents are

extremely impressed by that. Uh, they feel that, that the things that you're trying are not just the latest wave but that they're grounded in research and they may not articulate that but it does lend a certain confidence in what this school, how this school's operating. And I think that was particularly true in Data in a Day because I tried very, I made a concerted effort not to just get our supporters involved. We had a lot of nay sayers involved in that Data in a Day process and I felt that was extremely important to open it up. And that's what I mean about you know bringing people in, when you bring people in, you risk that they may not agree with you and that's okay, you know."

Similarly, a teacher said, "I think DIAD was really the key to help us really start looking at what we are doing and how we are doing it and getting more than just administrators and the board of supervisors interested in the data because all the students were involved in it and the information was disseminated out to the students. And so it was a real turning point in getting kids involved in education, rather than just faculty and administration."

One other positive comment about DIAD was idiosyncratic. A teacher described a discussion with his students following the experience about their perceptions of the block schedule, which had been the subject of DIAD investigations. One student interviewee simply stated that the classes she had observed during DIAD had been boring.

However, five comments concerned the lack of follow up subsequent to the process. "I don't know if anything was ever followed up on what the Data in a Day results showed. I don't know, if it was you'd think we would have been kept informed of it," reported one respondent. Another interviewee indicated that planning tended to be the purview of an advisory council, and that their action based upon DIAD findings had not been communicated: "The advisory council is the group that really does a lot of the planning for the school, the school planning, and those folks meet once a month. And they take input from such things as class and the Data in a Day results, and they sort of formulate the school plan based on input like that. So I think that involves the advisory council, for a couple of years, in on those meetings but we haven't been impacted directly with the vocational classes. I'm sure that there have been some impacts on planning and that sort of thing but I just haven't been involved in those meetings." Two of the five comments suggesting a lack of DIAD outcomes also recommended that a report of findings from the process ought to have been distributed to school community members.

Impact of Protocol at Xavier. Six comments concerned the impact of the Protocol process at the school. According to an administrator, the Protocol process enabled teachers to communicate safely about instructional strategies to help them guide their students through successful completion of the newly mandated research paper for district juniors. She explained, "Our work with Protocol has given teachers a means to discuss school improvement, teacher instructional improvement, in a way that is nonthreatening to individual practice. It becomes more of a group effort and it is a team building experience for teachers. Uh, so often they work in isolation. They have no idea what each other are doing, and the Protocol opens that process up. And I've really seen it with our 11th grade team and now that's beginning to filter across the departments." Later, she added that the process was introduced to Quest network members at just the time Xavier was confronting the challenge of helping juniors complete the research paper: "You know it was serendipity that at about the same time we were facing the challenges of the research paper and our teachers were so demoralized by having to meet that, that we were introduced to Protocol, which was a perfect process of letting

teachers not only vent their frustrations in trying to meet this mandate but also . . . in having a tool that helped them to improve their performance and the performance of their students. And, you know, that kind of cost benefit or added plus to that was that it did build very strong relationships among those teachers who were involved in that process. And I think they have a great deal more professional respect for one another than they did prior to the use of it."

The remaining three comments about the Protocol process briefly described or praised the technique, or noted that it was currently used in several departments.

Value of the Quest Network

Xavier interviewees were asked to describe the value, if any, of the Quest network as a means of supporting continuous school improvement. Fourteen comments indicated various ways in which the network had been useful to participants. Of these, six cited the value of the network as a mechanism by which new ideas for school improvement had been shared. As one student put it, "I think you can see what they improved on, like actual activities that they do, like what clubs they have, what works for them, like, if something works for them like as small as they are, I think it could, like, work for us, so I think getting different activities and different ideas from the students that went to, the different schools." Similarly, a parent said, "I think it's been a wonderful opportunity. I think it's really opened a lot of avenues to people and just, as I say of seeing how other schools handled little problems and you go hey we've got it on a bigger picture or a smaller scale, whatever the size is, and just the free flow exchange of ideas has been wonderful. It's been great." A teacher on the Quest team reported likewise: "That's just another window, uh, on the problems and it's people coming together to talk about problems but not necessarily solutions. But, you know, just exploring, you know what other people are doing, hearing, listening and looking at the problems that they have. It makes your problems maybe, you know, at least it puts them into perspective, if nothing else."

Three interviewees described the value of diverse membership in the Quest network. As one teacher reported, " I saw a real value in it. I saw how schools without the funding that we have survive and do certainly as well as we are doing. I see schools with 150 students and see how successful they can be in a diversity of classes and such. The different things they can do, many courses offered to them and sports available to them even though they are a very small school. It is good to talk to them and see how they are addressing their local problems."

Another three suggested that, despite such diversity, the value of the network had been finding common ground amongst schools from various locales. Describing messages she had read on the project listserv, one interviewee said, for instance, "I know just reading some of the other questions and some of the other comments that we were all available to see, you know, you see, like, they have a lot of your same concerns from little schools that have two and three hundred in West Virginia to our 3,000 plus school here, and yet you find the commonalities. And you know it gave you an outlet to kind of release some of your concerns and stresses and find out solutions, and I thought that was great."

The remaining two replies, from one respondent, were idiosyncratic. One comment suggested that participation in Quest had connected the school to a larger network of educators working toward

continuous improvement. This interviewee said, "Well, I think in the network you have this sense that there is a national movement of people who are like-minded and that, that in the long run will come out in terms of the research that the labs are doing, and that it will have an impact on the way in which we practice, uh, school effectiveness or school techniques or whatever you want to call it. I mean I, I do think there is that sense of being part of something that is bigger than your school or your district or your community or even your state."

Moreover, this Quest member valued the relationship with the project researchers: "I found that the professional relationships with the researchers has been very good. I mean, I've enjoyed that because they come from a different point of view and it's fun to be able to bounce the ideas off and to interact and to, to sometimes be able to be their guide into the way that schools really do operate. Uh, and then to have them act as your guide into the areas of research that can help you to improve your school, that's a very exciting relationship."

Asked about networking with schools outside of Virginia, interviewees made six comments suggesting that it had been valuable. Mentioned in five instances was the value of discovering common educational ground across state boundaries. Said an administrator,"It doesn't matter whether you're in Tennessee, or whether you're in Kentucky, or whether you're in Virginia–you both have standards that you have to meet." Similarly, a teacher opined, "It doesn't make any differences there, outside or inside [Virginia], because when you're sharing, somebody's dealing with things or problems, it's just beneficial. And I think a lot of good ideas came to all the schools there from other schools, and it didn't matter whether they were in the same geographical type situation, you were the same size, or anything. But they are people who cared about–for the most part really cared about–bettering their schools and investigating, you know, exploring what other people were doing."

DISCUSSION

What strikes us about these data are the uneven effects they indicate across sites. In some respects, this could be explained by the schools' disparities at the beginning of the project. One school, well-funded and serving mostly middle-class students, showed little growth, in terms of student achievement and professional learning community, over the course of its involvement in Quest. Two schools serving less advantaged students, on the other hand, improved dramatically in terms of professional learning community, although student performance outcomes were ambiguous. In addition, the four schools vary widely in terms of their size; the high school serves about 3,000 students, while Bending Knee had a student population of approximately 200.

Inconsistent results might also be accounted for by the different activities undertaken in each school through the Quest project. In two schools, use of the Protocol Process appeared to have an effect on the issue under investigation: Fourth grade writing proficiency improved at Bowman, and the process allowed English teachers at Xavier to collaborate in successfully coaching juniors through the newly mandated research paper. Results from other activities, such as student-led conferences, were somewhat more diffuse.

This illustrates one tension with which Quest staff struggled. The project was founded on research suggesting that schools require flexibility in designing their reforms because schools vary in their contexts, missions, goals, and resources. On the other hand, although the Quest framework aimed for comprehensiveness, the emphasis on flexibility enabled network schools to choose strategies which were not necessarily comprehensive and as a result, may have had little influence on student achievement. In an educational economy in which standardized achievement scores are the popular currency, this tension is one schools, their constituencies, and their evaluators cannot easily ignore.

We are also struck by the consistency with which interviewees in the four sites described their participation in Quest as personally and professionally meaningful. Although Xavier respondents indicated that the project saturated the school to a lesser degree than respondents from other schools, their accounts of the individual impact of Quest corresponded closely to their counterparts' accounts. Such a finding corroborates assertions that school change depends in part on the subjectivities of those involved in its execution (e.g., Fullan, 1991).

Nonetheless, a second tension confronted in the project is implied by our findings: Although the project appears to have influenced participants on the vital individual level, larger scale change was less evident and more ambiguous. This may mirror the way in which participation in Quest was voluntary at the school level and tended to have little sanction or resistance from higher levels in the organizational scheme. A school administrator or several teachers may have chosen involvement, but participation was rarely mandated by a school district and never by a state department of education. Earlier investigation suggested that involvement was not necessarily enhanced by mandate, however, for those few schools directed to participate in the network (Howley-Rowe, 1999a).

Fullan, too, argues in 1994 that "neither top-down nor bottom-up strategies, by themselves, are effective" (p.4). Centralized strategies are inadequate because the purview of higher-level administrators is limited by the complicated nature of educational organization; schools may respond to mandates superficially; mandates may not meet the specific needs or priorities of individual schools; and the dynamics of change do not lend themselves to control. Decentralization, alternatively, suffers in terms of effectiveness because schools are conservative institutions not inclined toward change; schools may lack resources in the face of competing priorities to sustain reform; and districts within which schools operate may inhibit change.

While "hybrids" of reform may be fashioned by teachers and administrators, such adaptation is relatively rare (Cuban, 1993). Staff find themselves in a virtually unresolvable quandary: Some change efforts require faculty to behave in collaborative, creative ways, whereas other reforms require compliance with top-down mandates (deMarrais & LeCompte, 1999). Quest schools faced similar dilemmas. While confronted with increasing pressure to raise standardized student achievement and adhere to curriculum standards, network schools also undertook work via the project which emphasized collaboration, increased communication about matters of pedagogical substance, and attention to school culture, climate, and purpose. These various types of initiatives originating from very different sites may have ultimately been at cross-purposes.

Continuous school improvement seems to be sustained (or obstructed) by the interplay of personal and professional concerns, the substance and structure of organizations assisting with school reform, and the relevance of reform to schools' objectives and circumstances (Fullan, 1991, 1994; Hord, Rutherford, Huling-Austin & Hall, 1987; Howley-Rowe, 2001; Newmann & Wehlage, 1996). Efforts to encourage school improvement, therefore, may benefit from a heightened "sociological imagination" about the interaction between the individual and structure (Mills, 1959).

According to Mills, the sociological imagination enables us to envision the relationship between our personal "troubles" and larger social issues and contexts, ultimately providing analytic tools with which to organize effective collective action. Without situating our individual experiences within the larger historical, political, and social context in which they take place, Mills argues that we will fail to account well for their causes and resolutions. Moreover, without sociological imagination we will confuse what is within our personal purview and what requires broader action in the qualitatively different sphere of social structure. As Mills explains,

> "Troubles occur within the character of the individual and within the range of his [sic] immediate relations with others; they have to do with his self and with those limited areas of social life of which he is directly and personally aware. Accordingly, the statement and the resolution of troubles properly lie within the individual as a biographical entity and within the scope of his immediate milieu-the social setting that is directly open to his personal experience and to some extent his willful activity. A trouble is a private matter: values cherished by an individual are felt by him to be threatened."
>
> "Issues have to do with matters that transcend these local environments of the individual and the range of his inner life. They have to do with the organization of many such milieux into

> the institutions of an historical society as a whole, with the ways in which various milieux overlap and interpenetrate to form the larger structure of social and historical life. An issue is a public matter: some value cherished by publics is felt to be threatened. Often there is a debate about what that value really is and about what it is that really threatens it. This debate is often without focus if only because it is the very nature of an issue, unlike even widespread trouble, that it cannot very well be defined in terms of the immediate and everyday environments of ordinary men. An issue, in fact, often involves a crisis in institutional arrangements, and often too it involves what Marxists call 'contradictions' or 'antagonisms'" (1959, pp.)

In terms of life in schools, a teacher may experience the personal trouble of isolation from colleagues, for instance. Her sense of alienation, however, can be understood within the context of a conservative education system–influenced by the legacy scientific management–the structure of which prioritizes individualism and professional autonomy to the detriment of collegiality and collective action (Lortie, 1975; Hord, 1997). This system produces the working conditions (e.g., segmented classrooms, lack of planning or study time, de-skilling, etc.) leading to teachers' individual feelings of isolation.

It is our sense that individuals in the four Quest case study schools found the project informative, supportive and sometimes inspiring at the personal level, but that the lack of external pressure and support for involvement impeded the extent to which Quest contributed to school improvement efforts. Although, as in Bending Knee, an interviewee reported that "Quest is a pervasive thing that kind of permeates throughout everything," other data belie such an assessment, particularly in other case study schools. Faculties' sense of themselves as a professional learning community increased dramatically in two case study schools. In another, however, no real change occurred in this regard. And in a fourth, *School Professional Staff as Learning Community* post-test data were not collected, yet interview and focus group data suggest that the school did not function more cohesively as a result of Quest. Individual participants influenced by the project in some schools likely required coordination with others in a broader local setting for saturation to have been more complete, despite the importance they ascribed to the personal growth they experienced during their involvement.

The larger issues of schools as loosely-coupled with their district office staffs, serving multiple constituencies, and constrained morally and financially by public commitment to "efficient" education serve to mitigate local efforts at school improvement. It is these concerns, among others, which with those developing and supporting school reform must struggle if they intend to make significant change.

This is not to suggest that Quest staff did not take these issues into account. Project staff often related individual circumstances and experiences to education, local, social, and political contexts. But their efforts were in turn constrained by limited resources and time with which to establish and maintain relationships with school district or state department of education staff, for instance. Other constraints included the challenge of offering relevant support to 18 network schools in 18 disparate circumstances; addressing school needs with strategies that were not necessarily

targeted toward student achievement, despite its use as the ultimate indicator of success; and mediating individualized assistance with the need to coordinate meaningful network activities.

Moreover, although a collective enterprise, the Quest network was not sufficiently large or vigorous enough to tackle the public issues shaping their local experiences. Being qualitatively different than the personal troubles they spawn, social circumstances require qualitatively different approaches (such as large scale coalition-building) to their resolution than do their micro-counterparts.

An implication for work of the Quest ilk, then, is the need to design strategies explicitly targeting the link between individual learning and collective change. This could entail involving district level staff from the beginning of school change efforts (an approach Quest staff attempted with limited success, by inviting central office staff to participate in the project as full members of Quest school teams), continuing and expanding the use of networks to encourage improvement endeavors, and seeking sufficient funds to support reform with depth and breadth. Developers may also need to build coalitions with others committed to educational change, mediating the fragmentation plaguing the system, in order to effect more comprehensive improvement. Coalitions might also provide the collective means to encourage capacity development in schools and districts.

In addition, designers of school improvement may also want to consider the ways in which social context and structure both constrain *and enable* action (Giddens, 1984). For example, loosely-coupled organizations, while sometimes capable of neglect of their smaller constituencies, also allow space in which teachers and school leaders may fashion their own approaches to improvement. The limited life of various improvement efforts may contribute over time to an accretion of change. And the school or school district, as a site somewhere between the individual and the structural, is situated to mediate the impact of social conditions on the life of schools.

To conclude, we have some reservations about the efficacy of Quest to influence the four case study schools and student achievement within them. Although individuals obviously thought the project had been of value professionally and had expanded their school improvement repertoire, larger concerns remained unresolved during their participation in Quest. However, we would contend that envisioning the broader context within which individual schools operate is crucial to the development of improvement approaches that permeate and are sustainable. This lesson we have learned from the Quest participants who raved about the personal and professional meaning of the project while remaining taciturn about its significance at the school level.

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APPENDIX A:

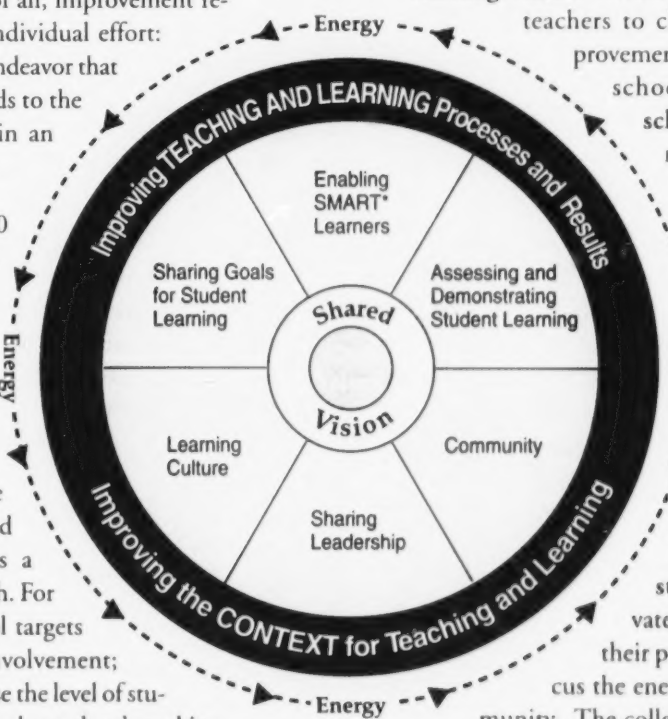
Quest Brochure and Framework for Continuous Improvement

Quest for Quality Learning Communities
A Program for Continuous School Improvement

School improvement is challenging work; to be effective, it must be continuous. Improvement is not a single act or program; it is a process of always wanting to learn more about how better to help **all** students achieve at higher levels. Improvement is visionary; it involves risk-taking, uncertainty, and a rejection of "doing what we've always done." Most of all, improvement requires more than individual effort: it is a collaborative endeavor that engages and responds to the diverse voices within an entire community.

Teams from 20 schools in a four-state region now collaborate with staff from the Appalachia Educational Laboratory (AEL) to study and learn together in the Quest project, and each school takes a slightly different path. For example, one school targets increased parent involvement; another hopes to raise the level of student thinking through teachers' working together and coaching one another; a high school improves teaching by listening to what students say about how they learn best; other schools focus on specific curriculum areas such as writing or science education.

The Quest framework unifies their thinking about school improvement. These **core values** offer a blueprint for continuous progress: ongoing questioning of practice, high expectations for all, individual responsibility for better performance, collegial sharing and support, and thoughtful reflection on practice.



Stemming from these values is a clearly defined **vision** of student excellence that is shared by all members of the school community. A strong **learning culture** encourages both students and teachers to choose continuous improvement as a way of life in their school. Members of the **school community** connect to one another through a shared commitment to improved learning conditions for all. **Shared leadership** encourages and enables everyone to assume responsibility for making a positive impact on the school community. **Shared goals for student learning** motivate individuals to improve their performance and help focus the energies of the entire community. The collection, analysis, and **use of student assessment data** sustains continuous improvement, providing a measure of the effectiveness of the community's efforts. **SMART** learners are Successful, Motivated, Autonomous, Responsible, and Thoughtful. Fully equipped to become lifelong learners, they are ready for life and work in the 21st century. In short, continuous improvement spawns the **energy** and excitement necessary to transform a collection of individuals into a true learning community.

Goals of the Quest Project

1. ***Connect* with colleagues.** By serving on a Quest leadership team, participants connect with others on their school team, forming bonds that enhance working relationships. In addition, Quest teams connect with teams from other schools, districts, and states, allowing everyone to learn from others' experiences. A listserv, inquiry@ael.org, facilitates connections across the network.

2. ***Create* a learning community.** Teams become part of the Quest network learning community with the expectation of recreating this experience in their own community.

3. ***Connect* with concepts and stories related to continuous school improvement.** At Quest rallies, the Quest framework is a source of study, dialogue, and sharing among teams.

4. ***Create* personal and shared meaning.** The Quest network places a high value on processes such as reflection and dialogue, which lead to deeper understandings of continuous improvement.

5. ***Commit* to continue learning with this community.** Quest schools have made a three-year commitment to study and learn together, with a focus on improving student achievement.

6. ***Commit* to continue the Quest back home.** The "rubber hits the road" at schools, not at Quest events. AEL helps school teams take their learnings home and apply them for the benefit of students. Site visits, called Co-Ventures in Learning, provide opportunities for AEL staff to visit each school, in order to better understand the context of that school's efforts, and tailor assistance to the school's needs.

What is a learning community? "Learning communities are essentially communities of inquirers . . . sustained by a continued commitment to share this journey of exploration with one another on matters people care deeply about" (Ryan, 1995).

Peter Senge et al. (1994) write that a learning organization "is a place where people continually expand their capacity to create the results they truly desire, . . . and where people are continually learning how to learn together."

The Quest project hopes to achieve results at three different levels:

- For individuals, sharing leadership on a Quest team leads to more reflective practice and renewed understanding of the concepts that support continuous improvement.
- For schools, Quest will provide motivation and support for ongoing and/or new school-based initiatives to improve teaching and learning.
- For the Quest network of schools, our collaborative learning and research will yield stories, insights, processes, and products—all of which will be helpful to the broader educational community.

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